PUBLIC LIBRARY
FEB 1 1954
DETROIT

THE ARCHITECTS' JOURNAL

RTS DEPT.



standard contents

every issue does not necessarily contain all these contents but they are the regular features which continually recur

NEWS and COMMENT
Diary
News
Astragal's Notes and Topics
Letters
Societies and Institutions

TECHNICAL SECTION
Information Sheets
Information Centre
Current Technique
Questions and Answers
Prices
The Industry

PHYSICAL PLANNING SUPPLEMENT

CURRENT BUILDINGS

HOUSING STATISTICS

Architectural Appointments Wanted and Vacant

No. 3075] [VOL. 119

THE ARCHITECTURAL PRESS

9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1. 'Phone: Whitehall 0611

Price 1s. 0d.

Registered as a Newspaper.

★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 5491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated), Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 67, Oxford Street, W.1.	Gerrard 0021
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Temple Bar 4561
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. 67, Oxford Street, W.1.	Gerrard 0021
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

After the disastrous fire in 1212 KING JOHN issued an ordinance in which the following appeared—

"All shops on the Thames be whitewashed and plastered within and without. All houses which can be plastered let them be plastered within eight days . . . those that will not be plastered in that term be demolished."



WHAT IS THE MENACE?

A building may be inconvenient, ugly, noisy or unhealthy, without being more than a nuisance to its occupants — BUT IF IT IS A FIRE-TRAP, IT IS A PUBLIC MENACE.

WHICH IS THE BEST WALL LINING?

"Plaster, being made of sand and calcium sulphate is incombustible and highly fire-resisting as a material. When it is reinforced and thereby held in position by wood laths, or better still by metal mesh, its resistance is valuable... Fire has been known to rage fiercely for a time in the flue-like spaces inside a stud partition while the plastered faces remained intact." From 'Fires in Buildings — the behaviour of materials in fire' by Bird & Docking.

WHY IS GYPSUM PLASTER THE BEST?

FIRE RESISTANCE. "MURITE" Plasters when set revert to Gypsum. This mineral contains 20% of chemically combined water which must be driven off before dangerous temperatures can be reached. This water barrier is one of the reasons why 'MURITE' Gypsum Plasters have such excellent fire-resisting properties.

GYPSUM PLASTER *QUITE* INCOMBUSTIBLE *FULLY* FIRE RESISTING

TELEPHONE NEWARK 2060

CAFFERATA & CO. LTD.

NEWARK-UPON-TRENT, NOTTS.

TELEGRAMS CAFFERATA NEWARK

GYPSUM PLASTER & CEMENT



Remember

RAWLINGS BROS.

LIMITED

ESTABLISHED SINCE 1887

Head Office: 85 Gloucester Rd., South Kensington, London, S.W.7

Telephone: FRObisher 8161 (10 lines)

BUILDERS & ELECTRICAL CONTRACTORS

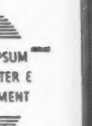
Members of L.M.B.A and E.C.A

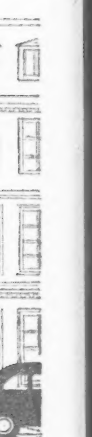


more

it is
. Fire
faces

ically
s one

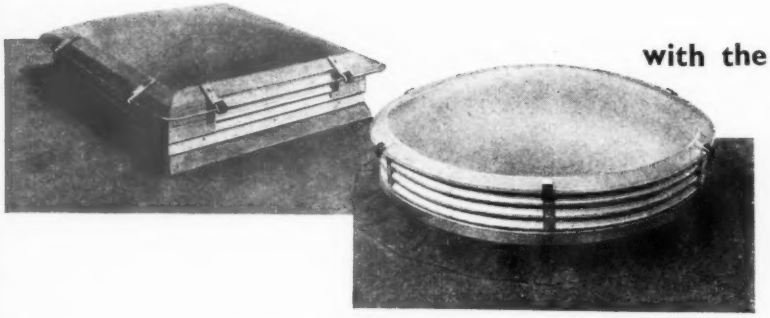








Permanent ventilation and daylight!



with the GREENWOOD-AIRVAC VENTILATOR FOR STANDARD GLASS DOMES

- *FOR CIRCULAR OR RECTANGULAR DOMES*
- *PERMANENT OR CONTROLLED VENTILATION*
- *INCREASED LIGHTING AREA OVER ORDINARY DOMELIGHTS*
- *MADE TO SUIT ANY STANDARD SIZE DOME*

Fully descriptive leaflet on request

Built of heavy gauge steel, this G.A. ventilator consists of a series of weathered external louvres with or without internal hit and miss shutters operated by a unique toggle for hand or long-arm control. Designed for mounting on a prepared timber or concrete curb, the unit is supplied zinc sprayed and unglazed.

GREENWOOD'S AND AIRVAC
Ventilating Company Limited
BEACON HOUSE • KINGSWAY • LONDON·W·C·2
CHANCERY 8135-6-7 "AIRVAC"-LONDON

The Kayenco
"SUPERB 70"
Gas Fired, Central Heating and Domestic Hot Water
BOILER
SETS A NEW HIGH STANDARD IN GAS FIRED BOILERS

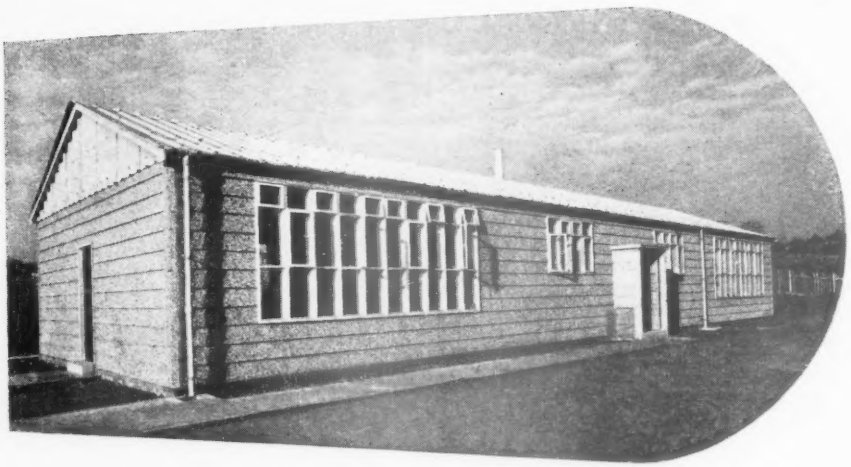
"SUPERB" Appearance
"SUPERB" Performance
"SUPERB" Life

Fully Automatic Finger Tip Control. Safe, Reliable, Efficient. Abolishes Dust, Dirt, Smoke, Grime, and Drudgery.

Leaflets and Showcards on request to Dept. A.J.



FREDERICK KAY (ENGR.) LTD.
NASHLEIGH WORKS, CHESHAM, BUCKS.
PHONE: 920-1



From Land's End to John o'Groats, there is no building project in any part of the country that Magnet Service cannot benefit.

MAGNET *covers the whole field*



Quick to install and keenly priced, Magnet standardised joinery, doors, windows, cupboards, etc., are a *double* saving on time and money. Three well-equipped factories and large stocks of kilned and air-dried timber combine to make Magnet Service the fastest ever, throughout the entire country.

Photographs reproduced by kind permission of Messrs. Wm. Airey & Son (Leeds) Ltd.

MAGNET
JOINERY LIMITED

★ *Write for FREE Literature to:—*

WHITLEY ST., BINGLEY, YORKS.	*Phone:* Bingley 3547 (3 lines)
LOVE LANE, ASTON, BIRMINGHAM.	*Phone:* Aston Cross 3291 (3 lines)
LONDON RD., GRAYS, ESSEX.	*Phone:* Tilbury 77 (5 lines)

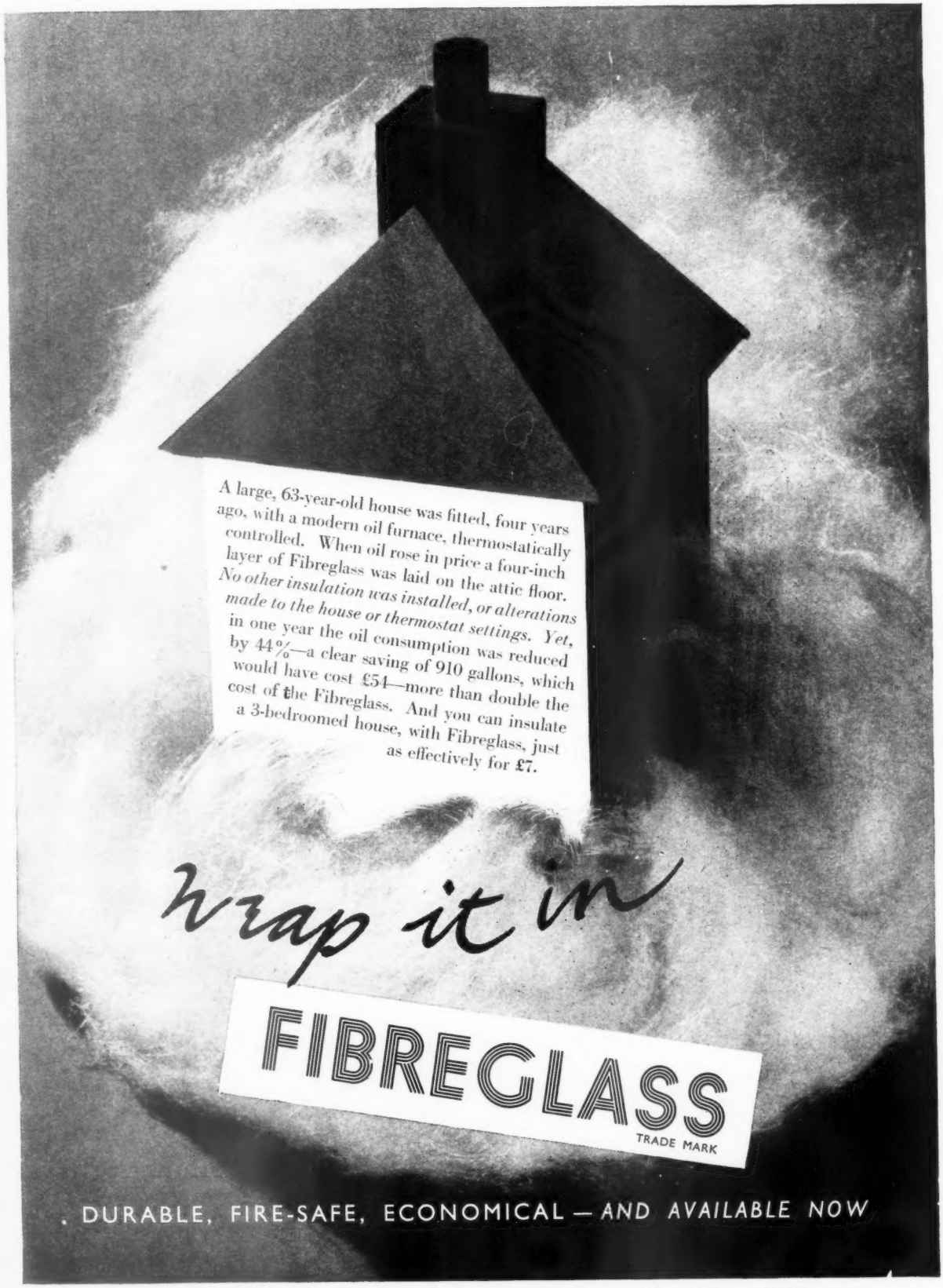
John
ding
the
rvice

keenly
rdised
cup-
saving
Three
and
d air-
make
ever,
untry.

o:—

3 lines)
3 lines)
5 lines)

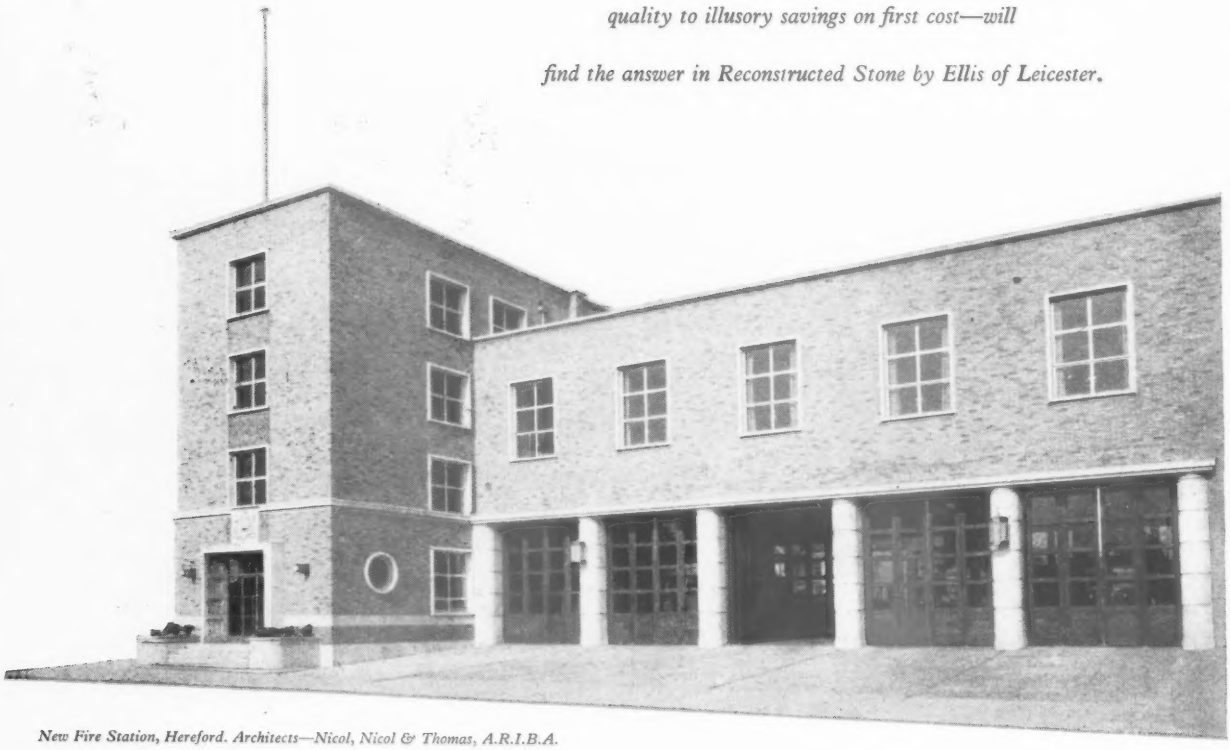




Fibreglass Limited, Ravenhead, St. Helens, Lancs. (St. Helens 4224)

Enduring Dignity

The man who looks beyond to-day and asks for a measure of true dignity that will last into the lives of future generations—the man, in short, who prefers quality to illusory savings on first cost—will find the answer in Reconstructed Stone by Ellis of Leicester.



New Fire Station, Hereford. Architects—Nicol, Nicol & Thomas, A.R.I.B.A.

JOHN ELLIS & SONS LIMITED.

21, NEW WALK, LEICESTER. TEL: LEICESTER 56682 · GRAMS: ELLIS LEICESTER

London Office : 29 DORSET SQUARE, LONDON, N.W.1

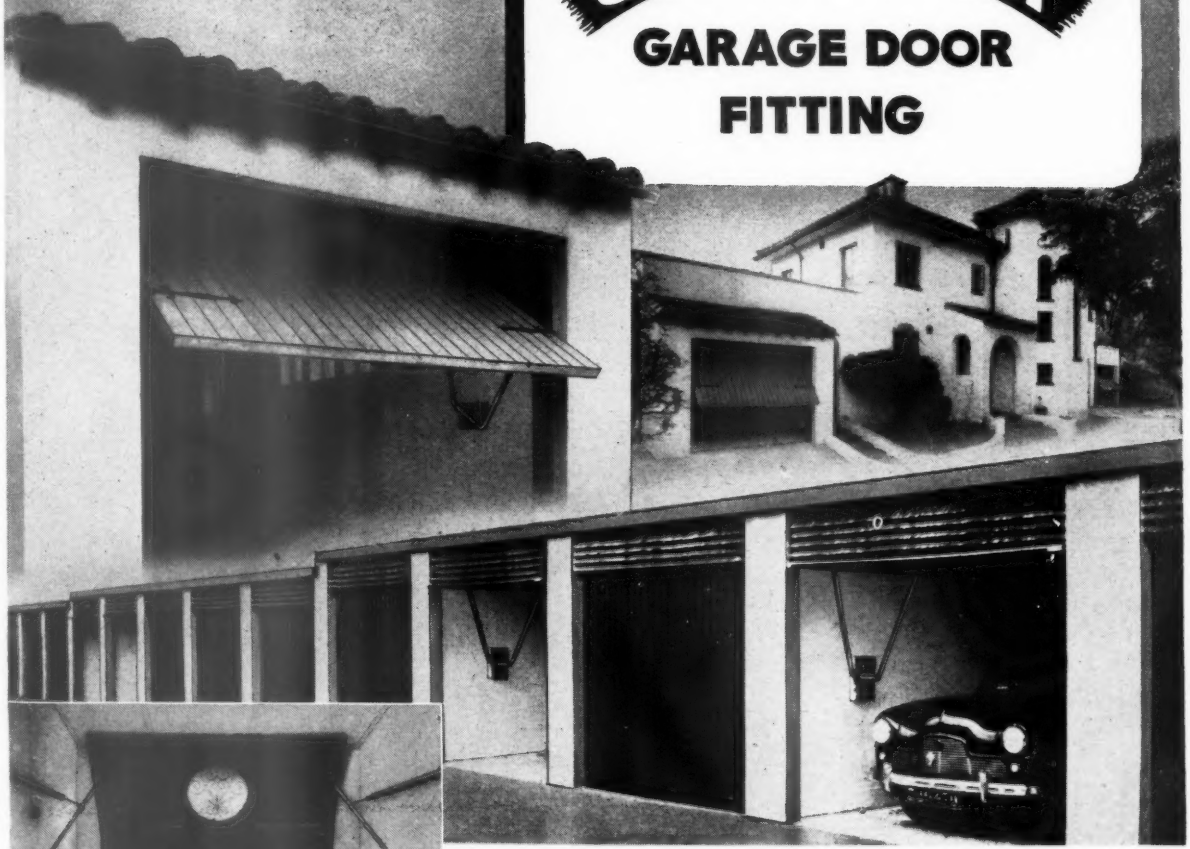
TEL : AMBASSADOR 1141/2 GRAMS : ELLISCAX NORWEST LONDON

ellis OF LEICESTER

For 'de luxe' garage doors at everyman's price specify the

ACROW

UP·AND·OVER GARAGE DOOR FITTING



- *THE SLIGHTEST EFFORT AND UP IT GOES, OVERHEAD & OUT OF THE WAY*
- *Occupies no floor space when open*
- *No pulleys nor counter-balance weights —there's nothing to wear out or go wrong*
- *Simple to fix —IT'S THE GARAGE DOOR OF TODAY AND TOMORROW*

WHEN you subtract from the cost of the fitting, the saving effected by having a single-leaf-door of light construction, there is little difference between the total cost of this modern easy-to-operate door and the clumsy, rapidly deteriorating, old-fashioned two-leaf type.

PRICES ex-works

MODEL 1 : requiring a minimum clearance of 16 in. above head of door: **£10.6.2**

MODEL 2 : requiring a minimum clearance of 2 in. above head of door: **£11.9.3**

Less trade discount to builders; and reduction for quantity

Full descriptive literature sent on request to :—

ACROW (ENGINEERS) LTD., SOUTH WHARF, PADDINGTON, LONDON, W.2: AMBassador 3456 (20 lines)

22 - 24 City Road, **Bristol, 2.** (Bristol 24595)
Lupton Street, Hunslet, **Leeds, 10,** (Leeds 76514)
Carl Street, **Walsall,** Staffs. (Wa'sall 6085)
130 Coventry Drive, **Glasgow, E.1.** (Bridgetown 1041)
14 Park Place, **Manchester, 4.** (Deansgate 7054)
78 Duncrue Street, **Belfast.** (Belfast 45211)



SWITCH TO THE "LINCOLN" TYPE AC

For Trouble-free Wiring

THE new 5 amp. "Lincoln" Type AC switch is provided with back-entry cable terminals and is directly attached to the plate. Wiring is therefore particularly easy.

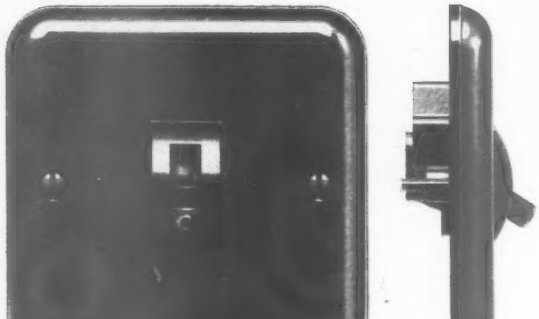
Because the unit has a very small projection there is room for a generous amount of cable slack, even when erected in a box of plaster depth.

The plate can also be accommodated to variations in plaster level merely by adjusting the two unit-fixing screws.

This new flush switch will certainly be popular with the busy installation engineer.



- Mechanism is protectively sealed against dust and may be operated in silence.
- Full, positive drive from dolly to moving contact. Contacts of heavy gauge, silver-inlaid copper.
- Single- or twin-switch units for erection in one-gang extra-shallow or B.S. 1299 boxes.
- A competitive switch of robust construction, in every way comparable with the other sturdy "Lincoln" wiring accessories.



CRABTREE

WIRING ACCESSORIES · SWITCHGEAR · MOTOR STARTERS

"Crabtree" (Registered)

C.681/214. Advt. of J. A. Crabtree & Co. Ltd., Walsall, Staffs., England



AQUASHEEN

WATER THINNED ENAMEL

REDUCES DECORATING COSTS

When considering interior decoration, **"AQUASHEEN"**, the remarkable new Water Thinned Gloss Enamel shows immediate advantages—particularly in price.

"AQUASHEEN" cuts labour costs— the highest single factor in painting—because it can be applied with large wall brushes as quickly, as easily as water paint.

"AQUASHEEN" cuts material costs. The initial cost is less than conventional gloss paints; it covers approximately one fifth greater area.

"AQUASHEEN" gives an enduring gloss finish; it is easily washable; there is no objectionable paint smell. It complies with the Factories Acts, claiming 7 years exemption from repainting.

Available only from the sole manufacturers and distributors who will gladly send you full particulars.

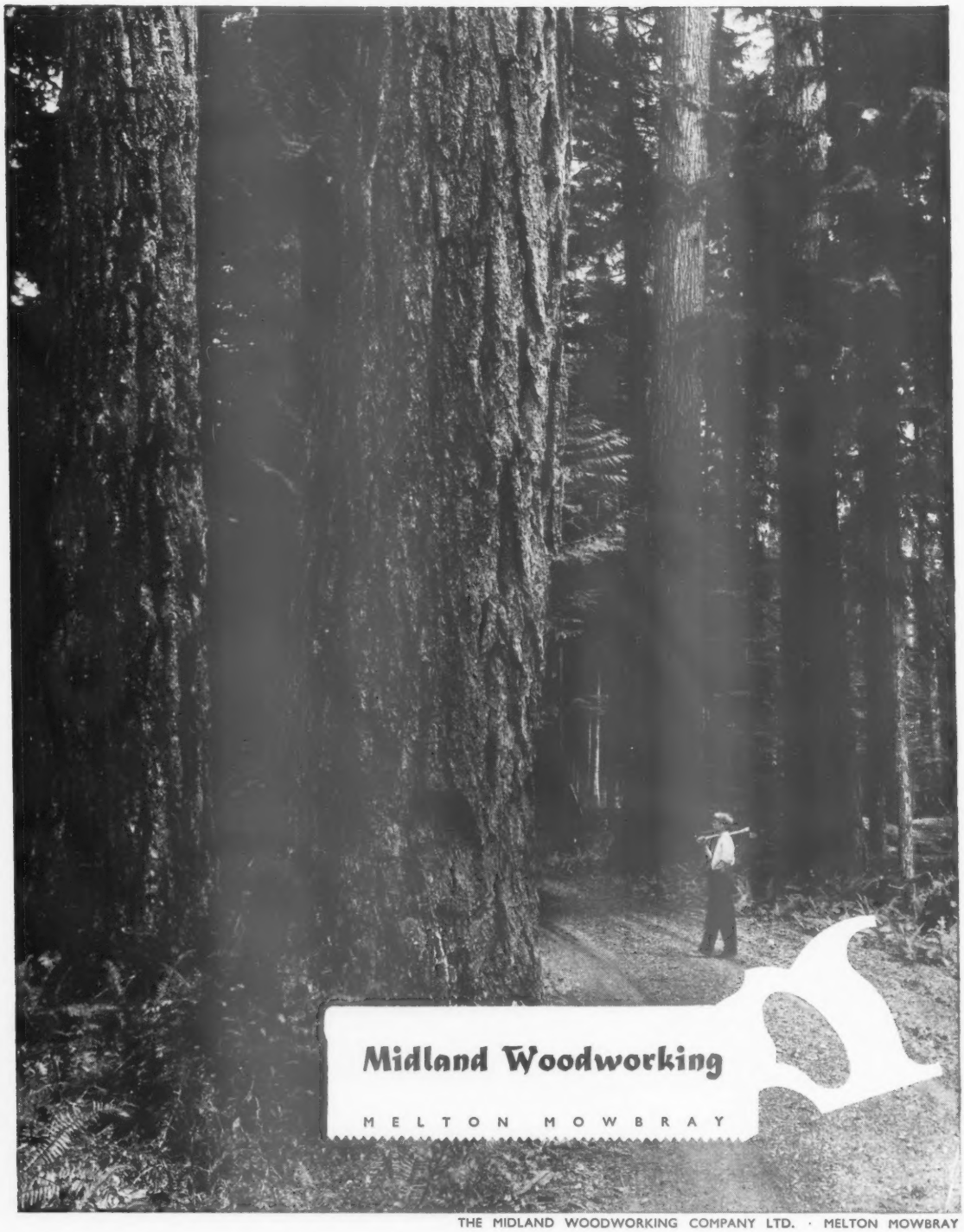
"Aquasheen" is for interior use only.

"Aquasheen" is not a Latex Emulsion Paint.

BRITISH PAINTS LIMITED

PORTLAND ROAD, NEWCASTLE UPON TYNE, 2 • CREWE HOUSE, CURZON STREET, LONDON, W.I.

Telephones: Newcastle 25151 • London, Grosvenor 6401-5.



THE MIDLAND WOODWORKING COMPANY LTD. · MELTON MOWBRAY

Specialists in high-class joinery for the Building Trade

CRC 17

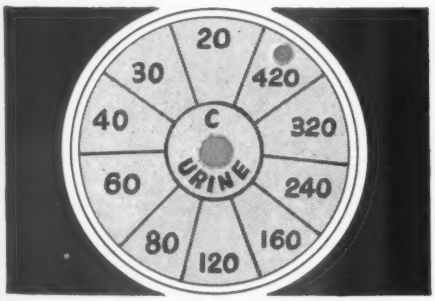


Then let DESTROL provide to-day's

Highest Standard of Sanitary Disposal

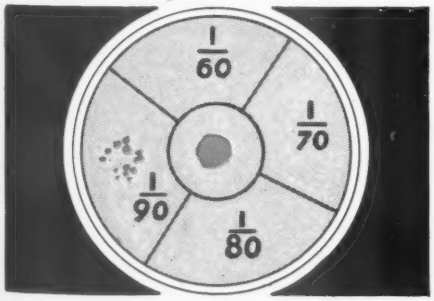
PROOF!

How DESTRINE kills bacteria



OVERNIGHT IMMERSION

This sketch has been made from an actual photographic reproduction showing culture growths after twelve hours in Destrine solutions of varying strengths. Note that growth has only been possible in the very weakest solution (1 in 420). Control in the centre shows growth in absence of Destrine. Recommended strength is 1 in 80.



This sketch has been made from an actual photographic reproduction showing culture growths after less than three minutes in Destrine solutions of varying strengths. Growth, and that very inhibited, has only been possible in the weakest solution (1 in 90). Recommended strength is 1 in 80.

The DESTROL standard satisfies the most fastidious, because of the exceptional effectiveness of the chemical "Destrine" which reduces the waste to a completely inoffensive fluid. Entirely self-contained above ground, the DESTROL requires only a soak-away pit 2ft. by 4ft. with pipe connection. *No cesspit required—no ventilation necessary—no manual emptying.* It is available in two forms as shown—the Family Model (18½in. by 30in. by 15in.) with aluminium bowl controlled by raising and lowering the lid, outside enamelled in cream, with black seat; and the De-Luxe Model (above floor 40in. by 29in. by 14½in., below floor 20in. by 27in. by 11in.) incorporating settling tank and flushed in a closed circuit by means of an electric pump for either mains or battery. Each type requires draining only after considerable use.

Specified by all Leading Architects.

BUSINESS REPLY CARD
Licence No. K.E. 2376

DESTROL SALES LIMITED,

402 SALISBURY HOUSE,

LONDON WALL, E.C.2



The "De Luxe" Model

	£ s. d.
wired to suit your voltage In white with black seat	63 0 0

Special connectors are available if required.

Destrine chemical per 4 lb. tin ...	10 0

(Cost of chemical works out at approximately 1d. to 1½d. per user per day.)

WHEN ORDERING IT IS IMPORTANT TO SPECIFY VOLTAGE REQUIRED.

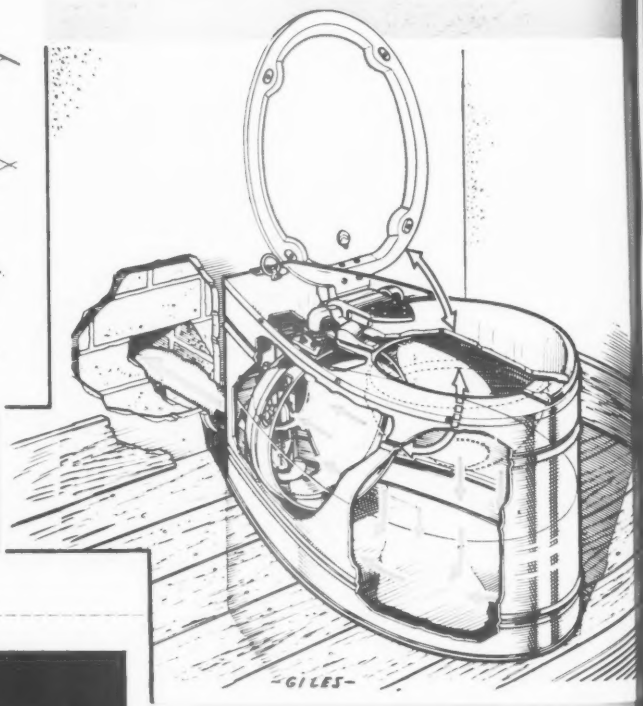
The Family Model

	£ s. d.
stove enamelled in cream with black seat	19 10 0

Special connectors are available if required.

Destrine chemical per 4 lb. tin ...	10 0

(Cost of chemical works out at approximately ¾d. per user per day.)



IMPORTANT! DESTROL CHEMICAL CLOSETS have been awarded the Certificate of Merit by the Royal Institute of Public Health and Hygiene.

DESTROL SALES LTD.
402 Salisbury House, London Wall, E.C.2.

Please send me full details, together with installation instruction sheet

Name
(IN BLOCK LETTERS)

Business Address
(IN BLOCK LETTERS)

.....

.....

DESTROL BUYERS INCLUDE :

War Office, Air Ministry, British Railways, British Electricity Authority, National Coal Board, Imperial Chemical Industries, Education Authorities, Oilfields and Refineries, The Earl of Shrewsbury's Estate, Ingestre, Staffordshire, The Duke of Westminster's Estate, Eccleston, Cheshire.

del

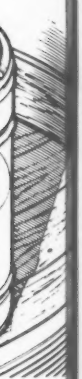
s. d.
3 0 0

10 0
mately

TANT

s. d.
10 0

10 0
nately



lways,
Coal
Educa-
neries,
gestre,
nster's

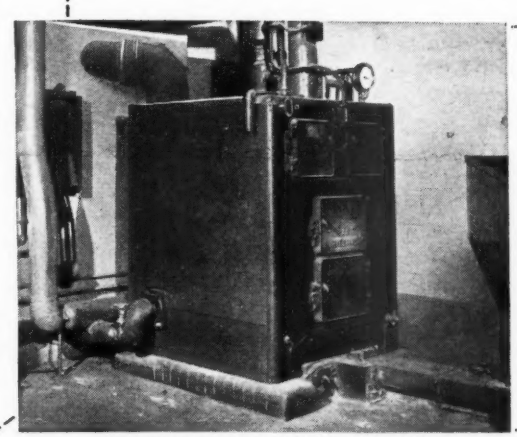




It is a great compliment to Crane that it was invited to supply central heating equipment for the new headquarter offices of the Coal Utilisation Council, whose function it is to promote the most efficient use of solid fuel in the home. Crane boilers and radiators are well-known for their heating efficiency and fuel economy. In all types of buildings, remodelled or newly constructed, Crane has the certain answer to all heating problems.

***DELIVERY DATES ARE MUCH IMPROVED— TRY CRANE FIRST**

Once again, heating by Crane...



Because of their fine design Crane Pall Mall cast iron radiators fit unobtrusively into the dignified interior of the Coal Utilisation Council offices while their durability ensures trouble-free operation. Hot water circulated by a Crane Whitehall boiler maintains even temperatures whatever the weather.

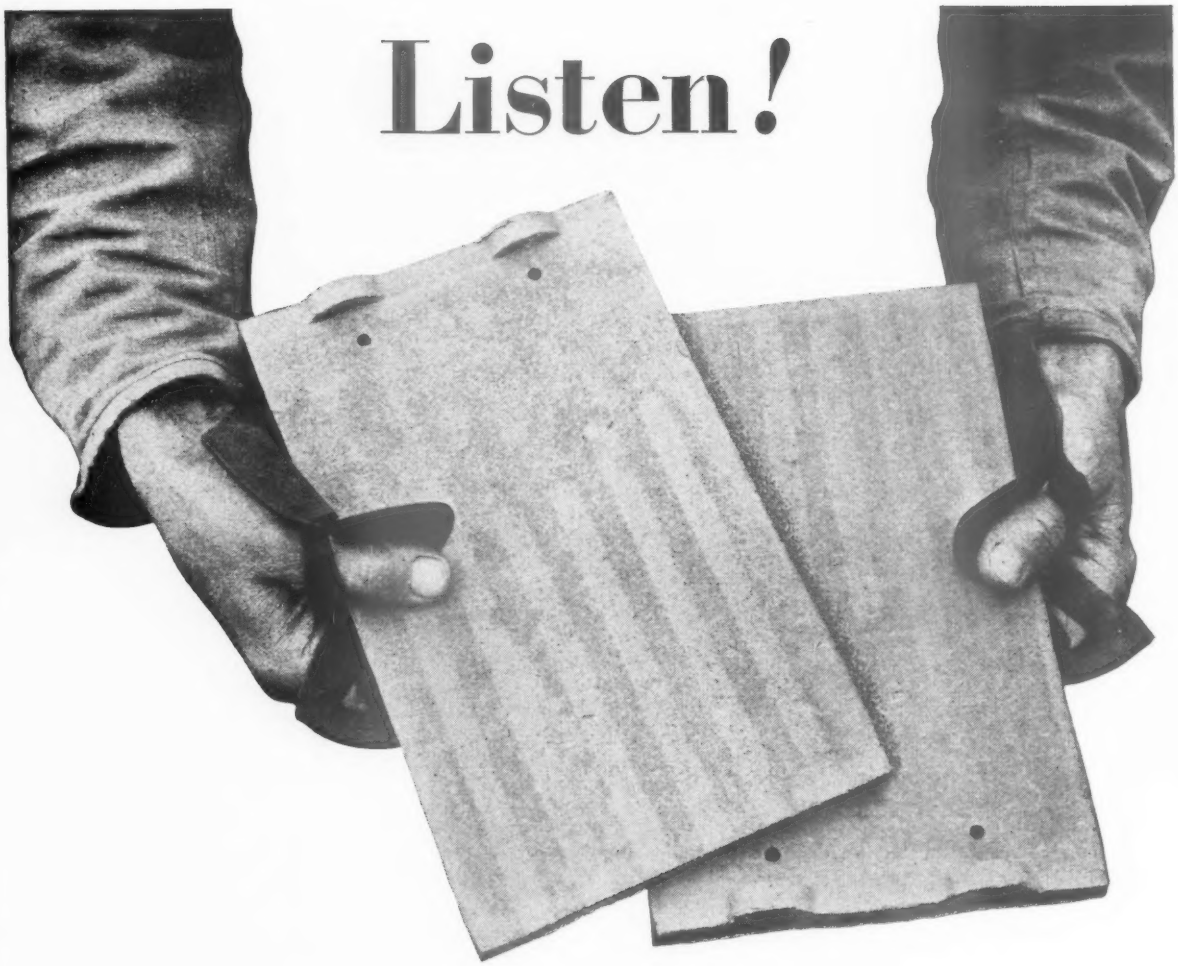
HEATING ENGINEERS: G. N. Haden & Sons, Ltd.

CRANE BOILERS, RADIATORS, VALVES & FITTINGS

E.4

CRANE LTD., 45-51 LEMAN STREET, LONDON, E.1. Works: IPSWICH
BRANCHES: BIRMINGHAM, BRENTFORD, BRISTOL, GLASGOW, MANCHESTER

Listen!



Knock two clay roofing tiles together and they will speak for themselves. The metallic ring tells of a series of carefully controlled operations satisfactorily completed. Listen, and you will hear a promise of long and honourable service—a promise which has been faithfully kept for centuries.

The 'Ring of Truth' speaks volumes for

Clay Roofing Tiles

"The Clay Tile Bulletin", published quarterly, post free on request.
Issued by The National Federation of Clay Industries, Drayton House, W.C.1

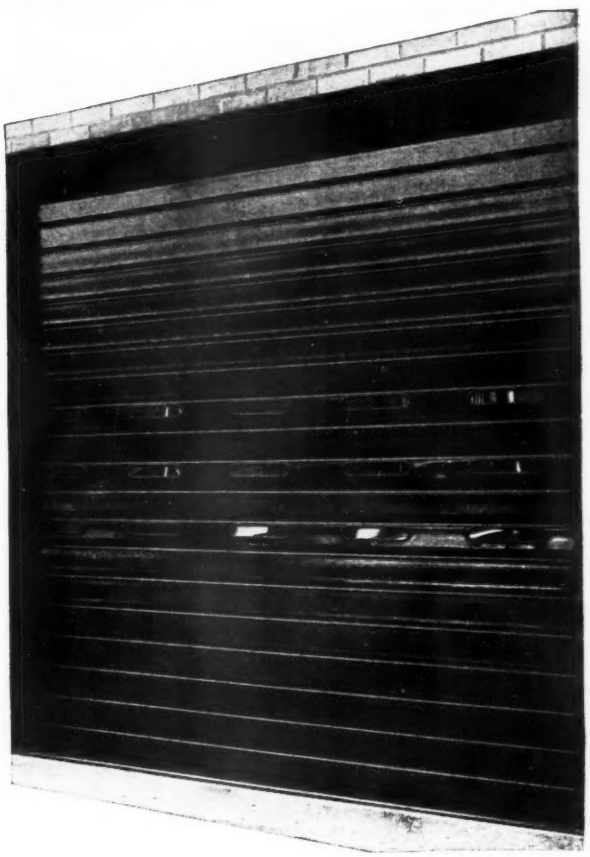


ANOTHER
Haskins
ADVANCE IN
ROLLING SHUTTER
CONSTRUCTION

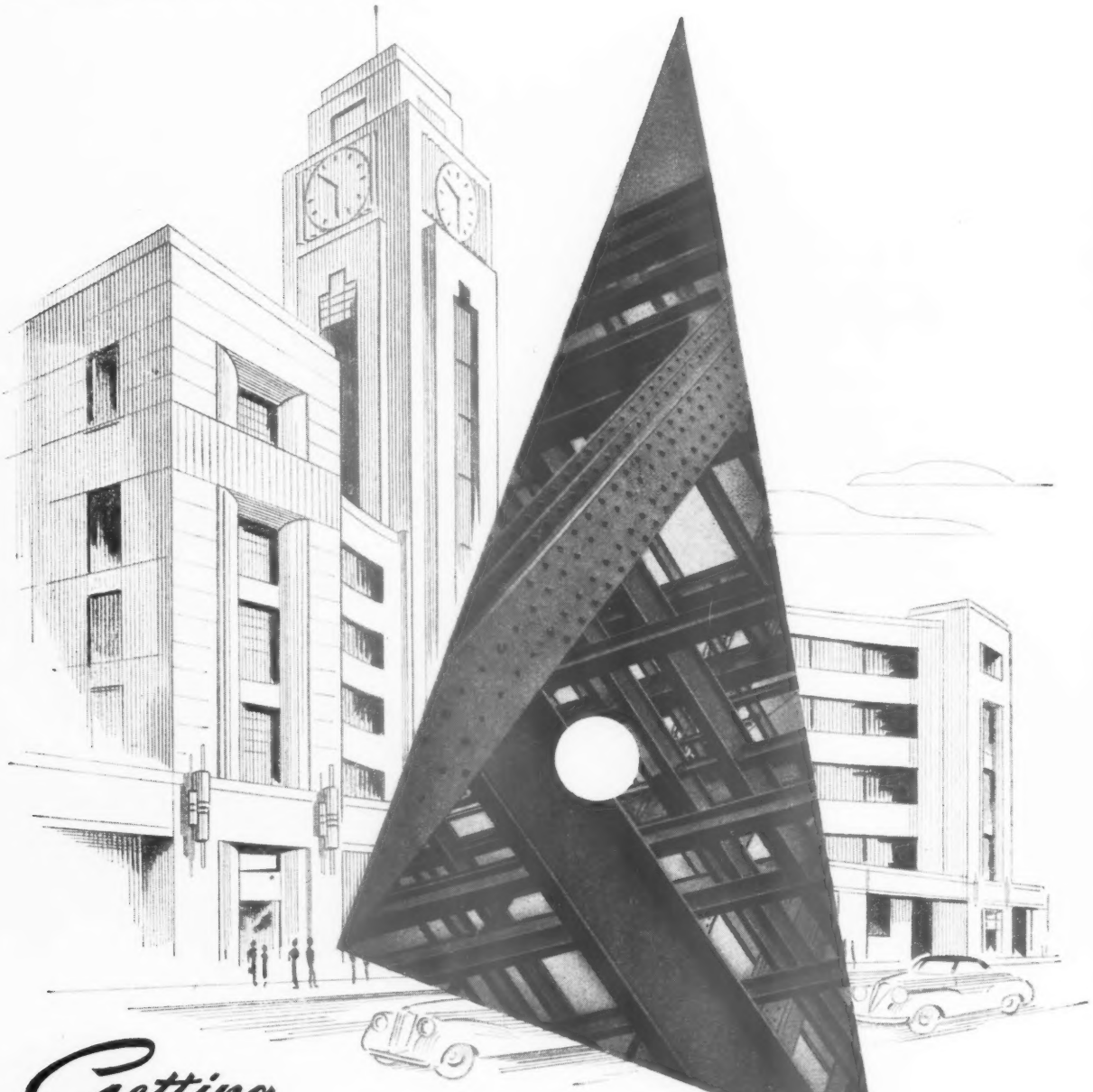
ROLADOR
STEEL ROLLING SHUTTERS

with the
heaviest, broadest slat
and the scientific method
of coiling
are the only rolling shutters which
can be filled with these
generous windows of
Triplex or Armourplate glass

Write for Information Sheet 23.H.6



Haskins GNOME HOUSE BLACKHORSE LANE LONDON E17 Telephone LARkswood 2622



Getting THE RIGHT ANGLE...

The sweeping lines of modern architecture call for a new approach to structural steelwork design and fabrication if strength is not to be sacrificed for appearance sake. The Horseley Group has experienced nearly two centuries of adaptation to " new " conceptions both in industrial and civil development so that the meeting of the most revolutionary constructional ideas comes as a second nature.

The **HORSELEY** *Group*

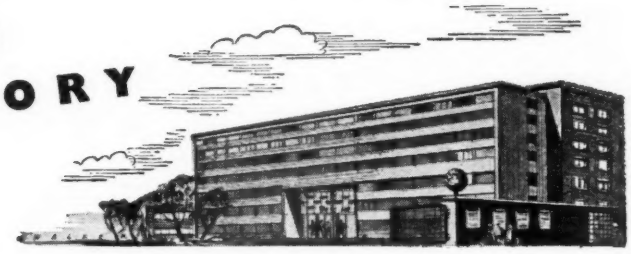
HORSELEY BRIDGE AND THOMAS PIGGOTT LTD., TIPTON, STAFFS.
CARTER-HORSELEY (ENGINEERS) LTD. WADDON, CROYDON, SURREY
AND ASSOCIATED COMPANIES



PLIMBERITE

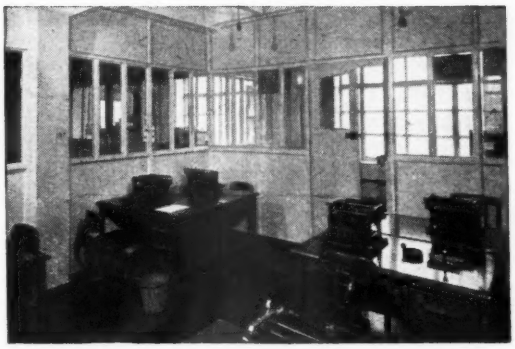
WOOD CHIPBOARD

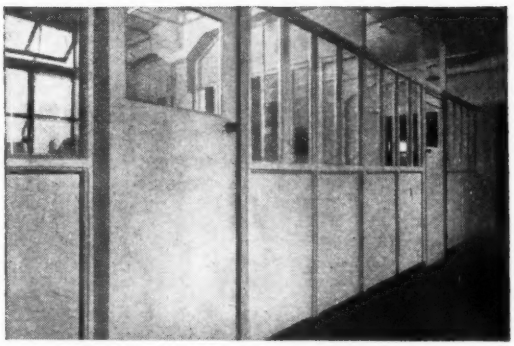
IN OFFICE AND FACTORY



cuts costs of conversions

Speed up your conversion work with Plimberite and cut partitioning costs. A sheet (8 ft. x 4 ft. in thicknesses of ½" and ¾") of this versatile resin-bonded wood chipboard cuts readily to fit any angle, thus saving you time, trouble and money. Manufactured under heat and pressure to a density of 50 lbs/ cu. ft., Plimberite is rigid, flameproof, with good sound and thermal insulating qualities. Moisture movement and load tests, carried out on Plimberite by the Department of Scientific and Industrial Research prove its stability and strength. The surface of Plimberite, so ideal for painting, is also suited, because of its pleasing appearance, to staining, waxing and varnishing. To ensure best decorative results, ask for specifications of various finishes. Complete technical data on Plimberite is available from the manufacturers.





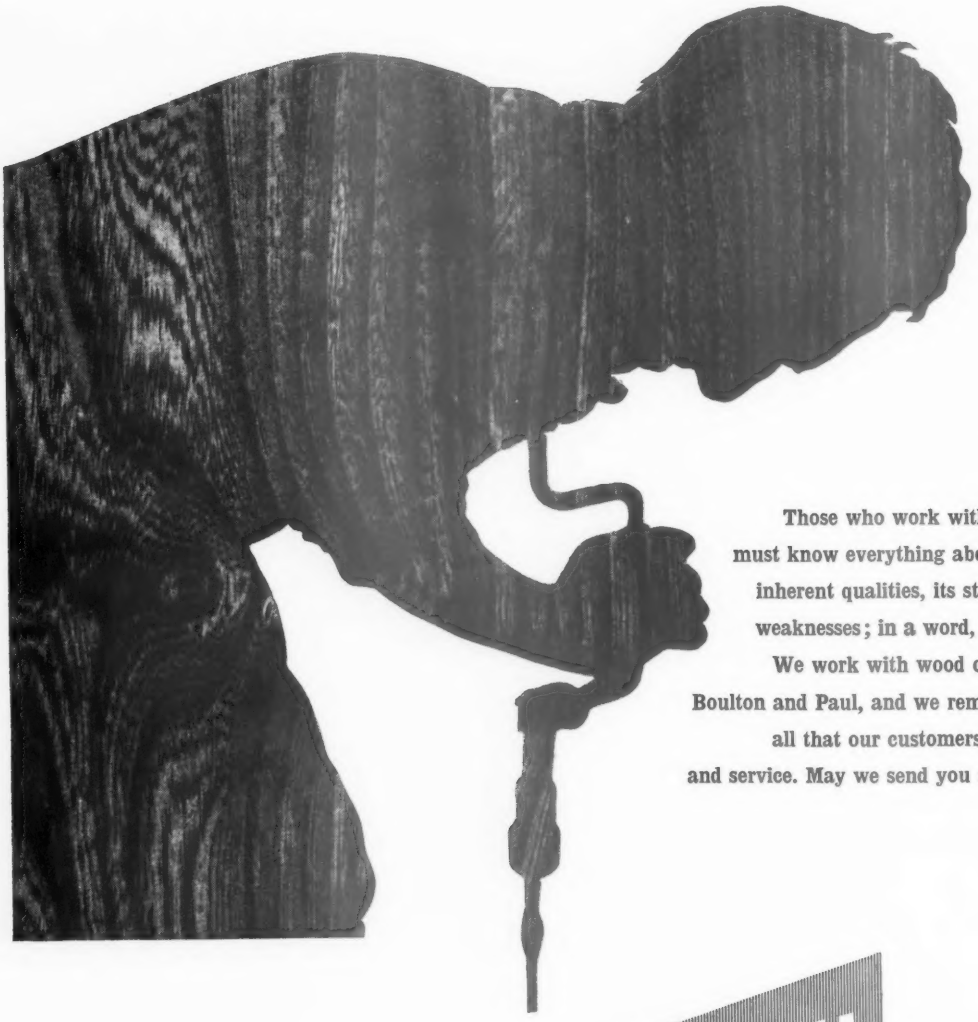
Offices constructed with ¾-in. PLIMBERITE and timber framing, by Messrs. Batger & Co., Confectionery Manufacturers, London, E.1.

See *PLIMBERITE* at:
THE BUILDING CENTRE
USE THE CENTRE
26 STORE STREET·W C1

BRITISH PLIMBER LIMITED

19 Albert Embankment · London · S.E.11 · Reliance 4242

SPECIALISTS IN JOINERY



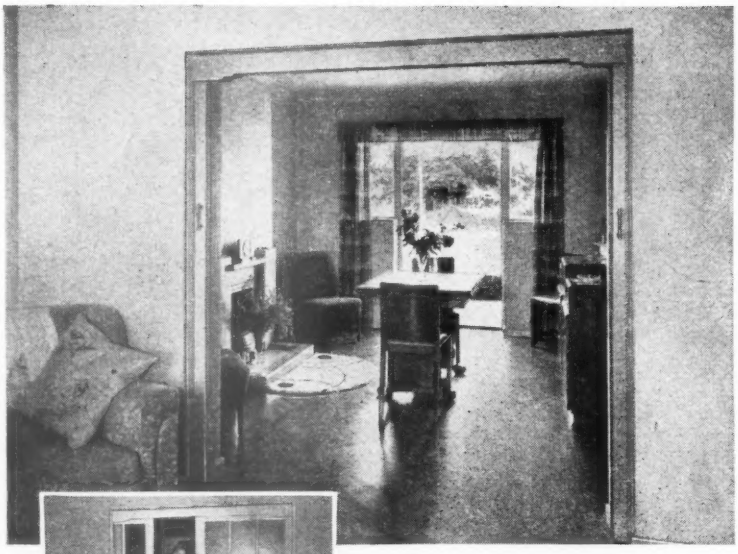
Those who work with wood must know everything about it, its inherent qualities, its strength and its weaknesses; in a word, its character. We work with wood on a large scale at Boulton and Paul, and we remember above all that our customers require quality and service. May we send you our catalogue?

when the joinery is by BOULTON AND PAUL

NORWICH
LONDON
BIRMINGHAM

. . . it's a first class job

CRC 16J





ELLARD

ESTATE SLIDING DOOR GEAR

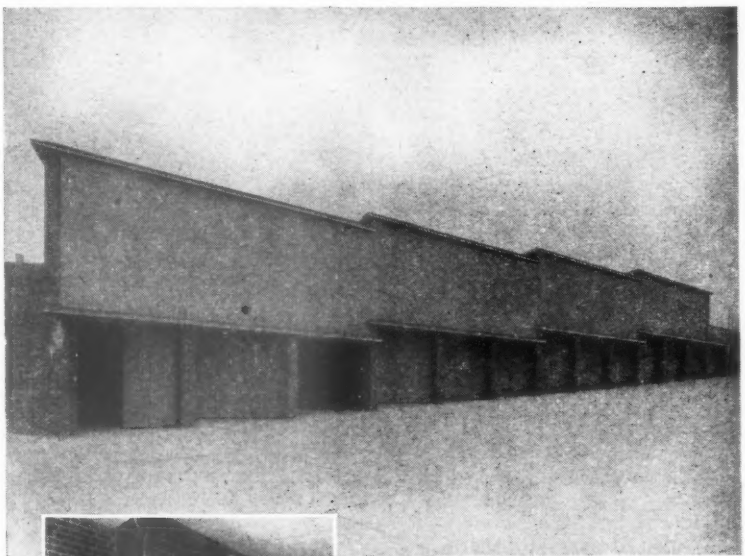
The illustrations above and on left show yet another example of the use of ELLARD "Estate" Sliding Door Gear in the modern dwelling house. See how simple it is to convert a spacious room to one of a cosy intimate atmosphere. The fingertip smoothness of door action offers immediate reduction of living space when desired with the additional advantage of fuel economy. Elegant appearance, ease of operation and long service are the main selling features of this attractive ELLARD Door Gear. Excellent design, moderate cost and maximum use of floor space make ELLARD Door Gear the obvious choice for both council estates and private houses.

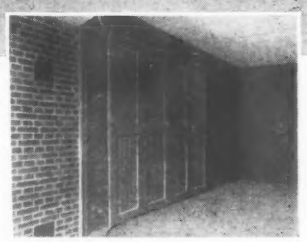
SEE OUR EXHIBITS AT THE BUILDING CENTRES, 26 STORE STREET, LONDON, W.C.1, AND 425-427 SAUCHIEHALL STREET, GLASGOW, C.2

CLARKE ELLARD ENGINEERING COMPANY LTD

WORKS ROAD · LETCHWORTH · HERTFORDSHIRE TELEPHONE: 613 - 4

BMJ





ELLARD

RADIAL SLIDING DOOR GEAR

The illustrations above and on left are two examples of ELLARD "Radial" Door Gear fitted to garages on a housing estate. The lower picture shows part of a range of thirty-six garages built in rows one above the other on what was once a hillside. This group of garages adjoins a council housing estate, and provides convenient and moderately priced garage accommodation for tenants. This scheme admirably suits smaller dwelling house estates and offers a profitable return as investment. Specify ELLARD "Radial" Sliding Door Gear for all round excellence of design, moderate cost and prompt delivery.

CLARKE ELLARD ENGINEERING COMPANY LTD

WORKS ROAD · LETCHWORTH · HERTFORDSHIRE TELEPHONE: 613 - 4

BMJ



Switchgear and regulating equipment for air conditioning and radiant heating plant.

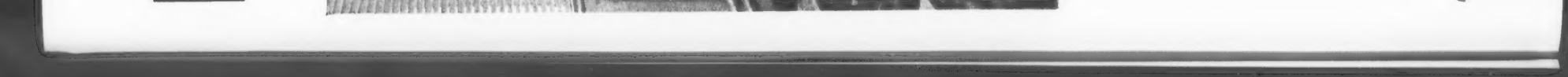
SULZER

AIR CONDITIONING
VENTILATION
PANEL WARMING
SPACE HEATING

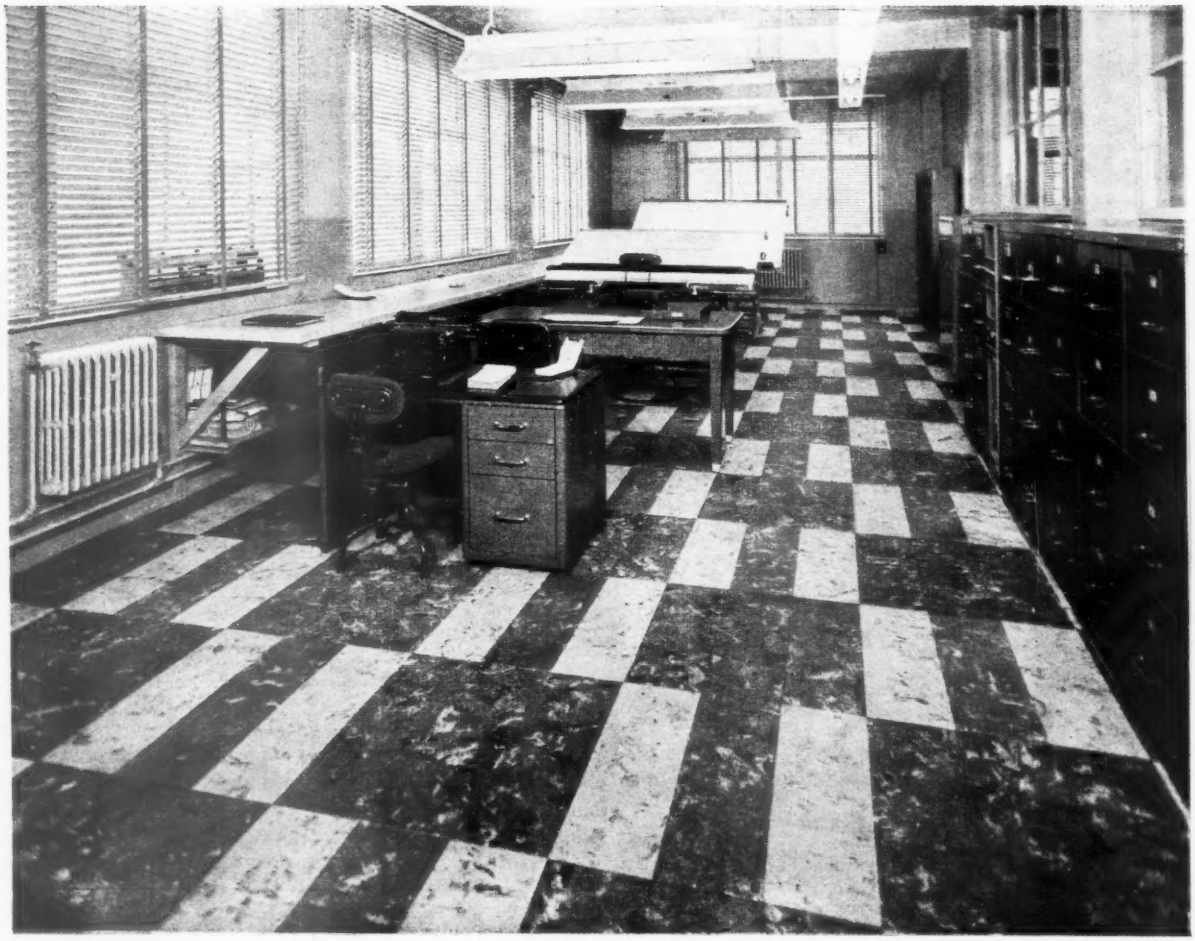
ELECTRODE BOILERS
INDUSTRIAL PIPING
ALL-WELDED STEEL-
PIPING INSTALLATIONS

SULZER BROS (LONDON) LTD., 31, BEDFORD SQUARE, LONDON, W.C.1

SULZER BROTHERS LIMITED HAVE OFFICES AT :— WINTERTHUR – PARIS – NEW YORK – MADRID – CAIRO – RIO DE JANEIRO – BUENOS AIRES – SHANGHAI – KOBE.
Agencies at :— BRUSSELS – MILAN – AMSTERDAM – LISBON – COPENHAGEN – OSLO – STOCKHOLM – HELSINKI – ATHENS – ISTANBUL – ALGIERS – JOHANNESBURG – HAIFA – BOMBAY
KARACHI – COLOMBO – SINGAPORE – BANGKOK – MANILA – MONTREAL – MEXICO CITY – BOGOTA – CARACAS – SANTIAGO (CHILE) – LIMA – LA PAZ – SYDNEY – MELBOURNE – WELLINGTON



Draw attention to efficiency with *Accotile** FLOORING



Drawing Office. The Beniamin Electric Ltd., London, N.17.

the perfect surface for heavy traffic in Offices, Showrooms, etc.

FEATURES

Accotile is made in 12" x 12" and 9" x 9" standard tiles in ⅛" thick for normal wear and 3/16" for heavy traffic: in 22 Marbled, Monochrome and Plain colours.

Accotile is unaffected by moisture, alkali and most chemicals. It can be laid on screeded concrete in contact with the ground. Accotile is laid only by Armstrong Cork Co. Ltd., or approved Specialist Contractors from over 90 branches and Depots throughout the country.

* *British Registered Trade Mark 663698 Armstrong Cork Company Ltd. Registered Users.*

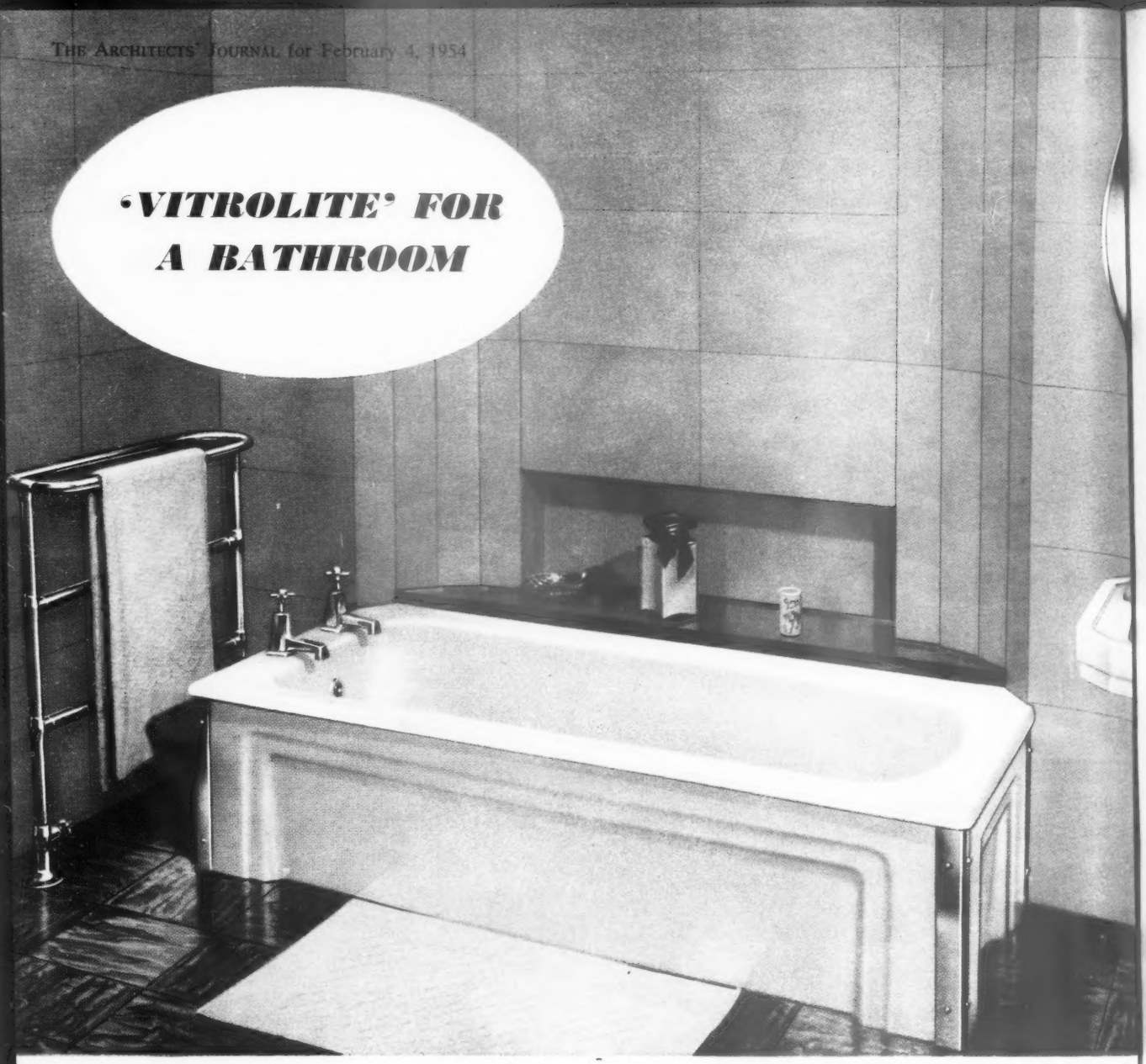
Among the surfaces available for heavy duty service in Commercial and Public Buildings, none is so appropriate or so versatile in design and colour as Accotile — the modern thermoplastic tile flooring. Ready for use the moment it is laid, easy to maintain, and permanently colourful, Accotile provides a floor of attractive appearance that gives distinction to any area, large or small.

If your Accotile reference file is incomplete, we shall be pleased to bring it up to date with our latest literature.

ARMSTRONG CORK COMPANY LTD.
Flooring Division, Bush House, Aldwych, W.C.2. Tel: CHAncery 6281

Branches MANCHESTER BIRMINGHAM LEEDS GLASGOW DUBLIN

'VITROLITE' FOR A BATHROOM



Photographed at the showrooms of Shanks & Co. Ltd., London

The walls are covered from floor to ceiling with Green Agate 'VITROLITE', creating an effect of cool cleanliness, perfectly in keeping with the character of the bathroom.

'VITROLITE' has functional qualities of the first importance. Non-crazing, non-fading, no upkeep—the opaque, fire-finished surface stays in perfect condition for ever. Colours available are: Pearl Grey, Primrose, Green, Green Agate, Turquoise, Eggshell, Cream, Ivory, Black and White.

"VITROLITE"

Consult the Technical Sales and Service Department at St. Helens, Lancs., or Selwyn House, Cleveland Row, St. James's, London, S.W.1. Telephones: St. Helens 4001, Whitehall 5672-6.

"VITROLITE" is the registered trade mark of Pilkington Brothers Limited. Supplies are available through the usual trade channels.

PILKINGTON BROTHERS LIMITED

ST. HELENS LANCS.

BRITISH GLASS P.B.

V.2

BIGWOOD

Unrivalled for . . .

DESIGN
CONSTRUCTION
DELIVERY
PRICE
SERVICE

UNICALOR
UNDERFEED
COAL STOKERS

MAGNACALOR
(NO WEARING PARTS)
COKE STOKERS

JOSHUA BIGWOOD & SON LIMITED
Head Office: WEDNESFIELD ROAD · WOLVERHAMPTON
Telephone: 24771

NORTH-EAST. B. Peace, 54 Benomley Crescent, Almondbury, Huddersfield. (Tel. No. Huddersfield 2035)

NORTH-WEST. W. E. Bradley, 5 Higher Downs, Altrincham, Cheshire. (Tel. No. Altrincham 2165)

WEST MIDLANDS. E. Edwards, 'Fairwood,' Eveson Road, Norton, Stourbridge. (Tel. No. Stourbridge 5583)

EAST MIDLANDS. R. L. MacGregor, 88 Westcotes Drive, Leicester. (Tel. No. Leicester 65372)

LONDON. H. C. Williams, 41/42 Parliament Street, London, S.W.1. (Tel. No. Whitehall 0748)

SOUTH-WEST. H. L. Boorne, 'The Ridge,' North Road, Bath. (Tel. No. Bath 2545)

SCOTLAND. J. Paton, Smail Sons & Co. Ltd., 62 Robertson Street, Glasgow C.2. (Tel. No. Glasgow Central 0421)

IRELAND. P. J. Casey, 38 The Rise, Mount Merrion, County Dublin. (Tel. No. Dublin 82587)

SK47

Instruction for CONSTRUCTION ... RULE OF THREE:

There is a "thoroughbred" quality about structural steel which gives it remarkable strength in relation to bulk and enables the architect to make full use of interior space.

(1) PLAN IT IN STEEL

(2) BUILD IT IN STEEL

(3) BUILD IT IN BOOTH STEEL



BOOTH STEELWORK ... for SCHOOLS

HASSENBROOK SECONDARY SCHOOL, STANFORD-LE-HOPE, ESSEX.

ARCHITECT—GERALD LACOSTE, F.R.I.B.A. In conjunction with Harold Connolly, F.R.I.B.A., Essex County Architect.

CONSULTING ENGINEERS—W. S. ATKINS & PARTNERS.

JOHN BOOTH & SONS (BOLTON) LTD., Hulton Steelworks, Bolton. Tel: 1195

London Office: 26, VICTORIA STREET, WESTMINSTER, S.W.1. Tel: ABBey 7162

. . . but what of the future?



As so many local authorities are proposing to declare large areas as Smokeless Zones those who plan for industry are bearing this in mind when specifying equipment for heating or raising steam. The works which you are planning today may be in an area which will later be declared a Smokeless Zone. Gas equipment installed now will ensure that production is not disrupted by alterations to comply with this legislation. Nothing beats gas for low installation cost and economical running allied to cleanliness.

. . . gas is clearing the air

Issued by the GAS COUNCIL · 1 GROSVENOR PLACE · LONDON S.W.1 · Telephone: SLOANE 4554

GC3F



ROM RIVER for REINFORCEMENT DESIGN

The design of reinforcement must take into account the availability of steel suitable for the job.

By entrusting the design to the Rom River Reinforcement Service, you ensure that the steel specified will be supplied as and when required . . . from Rom River's own large stocks.

ROM RIVER
reinforcement service
design . . . supply . . . bending . . . fixing

Please write for Service Brochure

THE ROM RIVER CO. LTD., 3-16 Woburn Place, London, W.C.1
Telephone: TERminus 7877. Telegrams: Romriver, Westcent, London

T.A. 5179

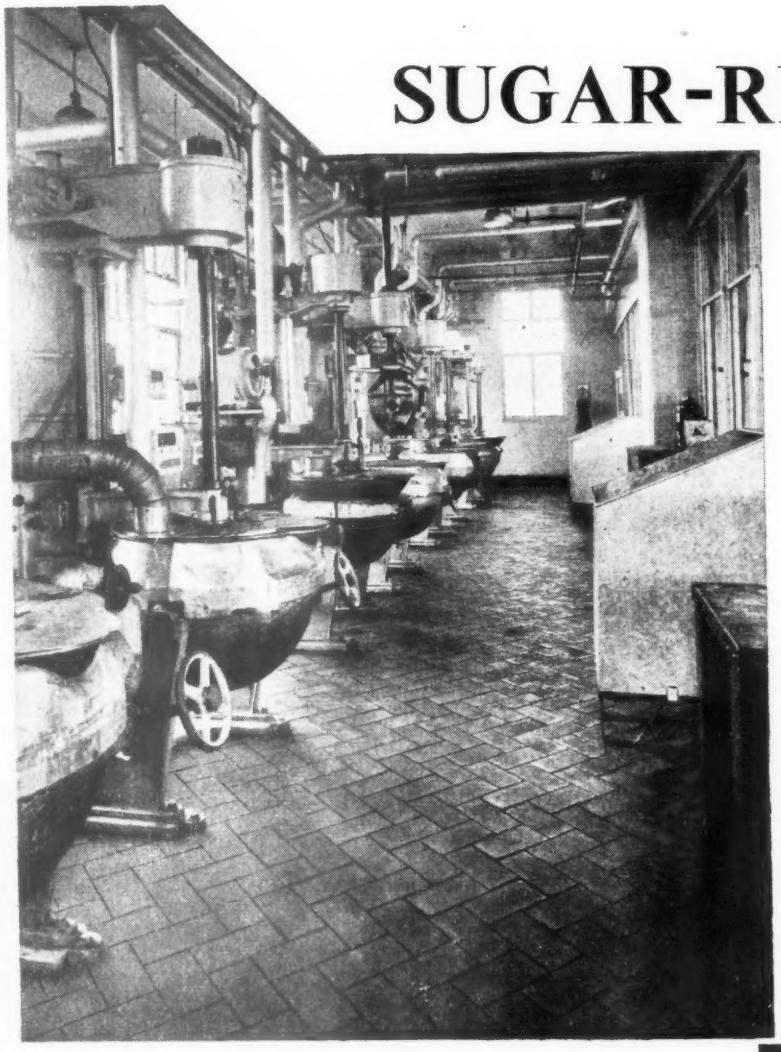
★ADASTRA★
REGD.



TYPE No. F25015/1
–ONE OF A SELECTION OF 'ADASTRA' LIGHTING COLUMNS APPROVED BY THE COUNCIL OF INDUSTRIAL DESIGN

ALL 'ADASTRA' SECTIONAL STEEL COLUMNS ARE HOT SPELTER GALVANISED AFTER MANUFACTURE

POLES LTD
TYBURN ROAD · BIRMINGHAM 24
TELEPHONE: ERDINGTON 1616 (5 LINES)
CONSTRUCTORS GROUP



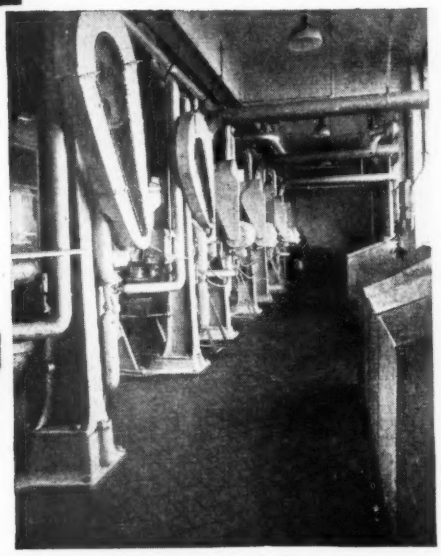
SUGAR-RESISTING FLOORS

by

WHEATLY

Over 1,000 sq. yds. of Red Shot Faced 9″ x 4½″ x 1¼″ Triton Quarries laid in special acid resisting cement were used in this factory.

Clarnico Ltd. Factory at Stratford, E.15
Consulting Engineers: Oscar Faber & Partners



WHEATLY

triton



Specimens of Wheatly Tiling may be seen at the Building Centre, London. Wheatly products include Single-lap Roofing Tiles, Ridge Tiles (blue and red), Floor Quarries, Air Bricks and Briquette Fireplaces.

WHEATLY & COMPANY LIMITED
SPRINGFIELD TILERIES · TRENT VALE · STOKE-ON-TRENT
Telephone: NEWCASTLE (*Staffs*) 66251 *Telegrams:* WHEATLY, TRENTVALE W.H.65



Really old boy you should try the 'New Angle' with

FOR TECHNICAL INFORMATION ASK **Econa** they can help you

ECONA MODERN PRODUCTS LIMITED
AQUA WORKS · HIGHLANDS ROAD · SHIRLEY · BIRMINGHAM
TELEPHONE & TELEGRAMS: SOLIHULL 3078

(By Appointment to the late King George V)

WARING & GILLOW

Specialists

IN

FURNISHING

AND EQUIPMENT

OF

PUBLIC BUILDINGS

SHIPS · CLUBS · HOTELS

SCHOOLS · BANKS

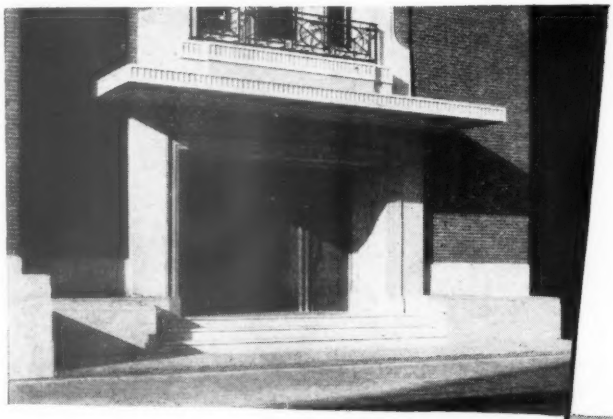
AND OFFICES

CONTRACTORS TO H.M. GOVERNMENT

Estimates on application to
Contract Department

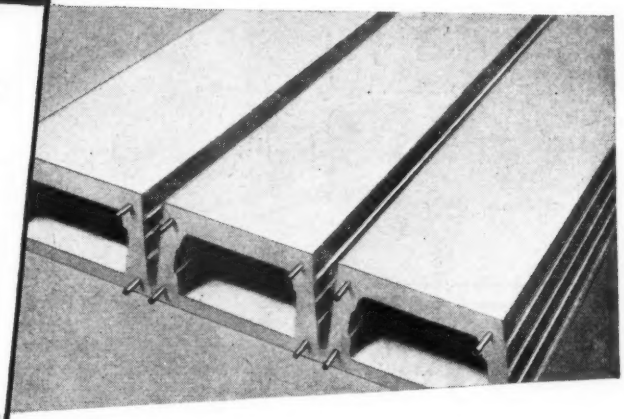
WARING & GILLOW LTD.
164-182 OXFORD ST., LONDON, W.1
Established 1695
Telephone: MUSeum 5000
Factories at LANCASTER, LIVERPOOL and HAMMERSMITH

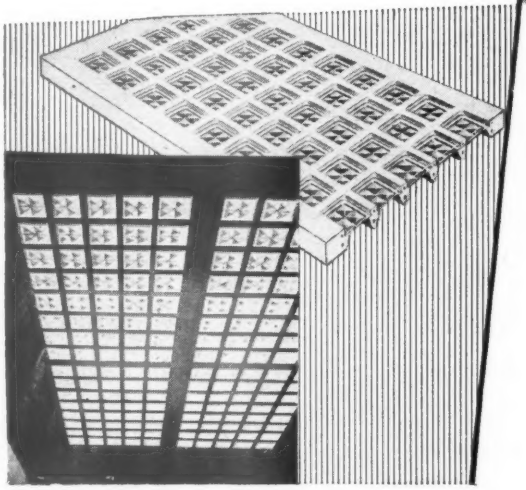
A UNIQUE SERVICE FOR ARCHITECTS



Masonry and high grade concrete castings

Reinforced concrete and prestressed roofs and floors





Roof and pavement lights

GIRLINGS

have a concrete answer to your problem!

By Appointment Suppliers of Ferro Concrete Work to the late King George VI

GIRLINGS' FERRO CONCRETE CO LTD

SOUTH: Great West Road, Feltham, Middlesex Telephone: Hounslow 1158
MIDLANDS: Rothwell, near Leeds Telephone: Rothwell 3174 (Leeds Extension)
SCOTLAND: Southbank Road, Kirkintilloch, Glasgow Telephone: Kirkintilloch 2244/5

See our exhibit at the Building Centre, 26 Store Street, Tottenham Court Road, W.C.1

OXYLENE BORAM

FIRE RETARDANT COATING

PREVENTS THE SPREAD OF FLAME

Raises INSULATION BOARD to CLASS I

Easy to mix, economical in use

Full particulars and instructions from :

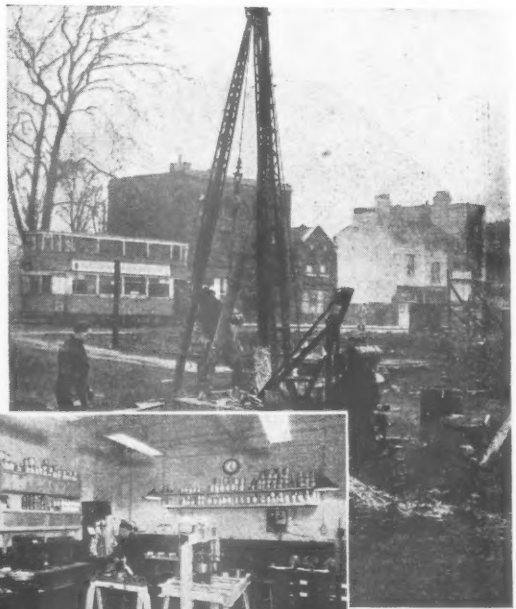
THE TIMBER FIREPROOFING CO., LTD., MARKET BOSWORTH

Sole Proprietors and Operators of the OXYLENE (Regd) Process **NUNEATON**

SITE INVESTIGATION

The essential preliminary to the economical design of foundations for building construction

In addition to our Test Boring facilities, we are able to offer the services of our Soil Mechanics Laboratory, which is fully equipped to carry out a complete series of laboratory tests with modern apparatus. On completion of the tests, comprehensive reports are provided showing the properties of the soil samples, the results of the various tests, and their practical application to the foundation problem under consideration. The work, both in the field and in the laboratory, is supervised by qualified engineers who have made a special study of the subject.



Test boring operations in progress.

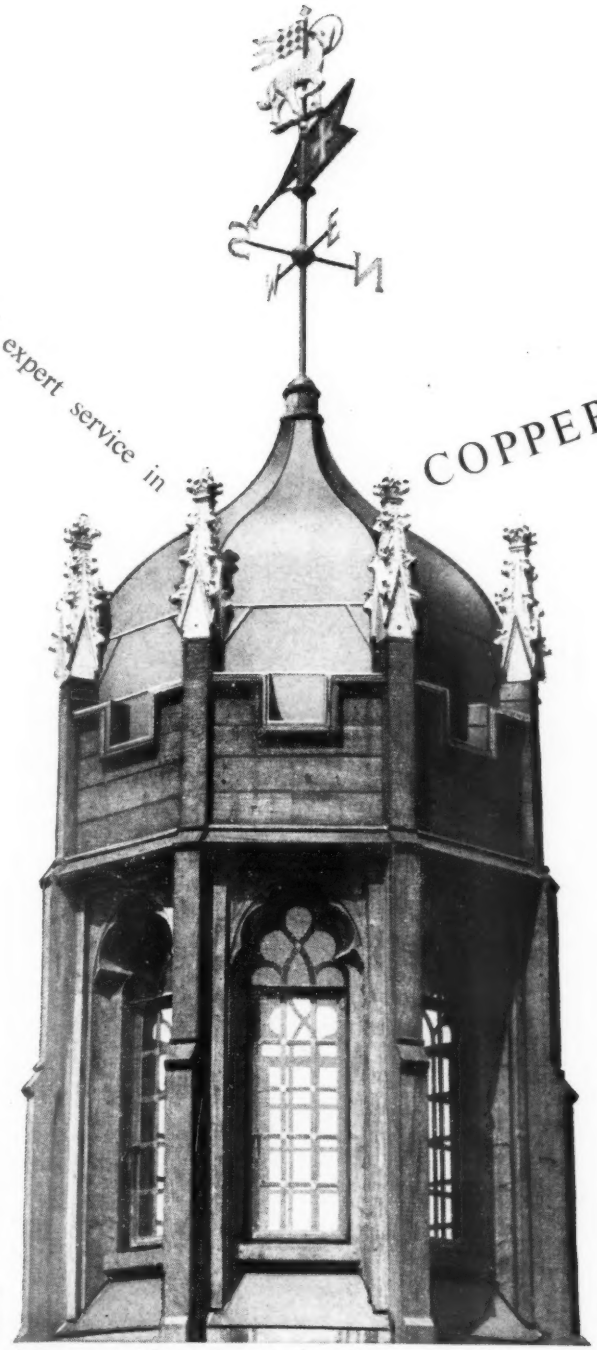


A Section of our Soil Mechanics Laboratory.

LE GRAND SUTCLIFF & GELL LTD.

SOUTHALL · LONDON · *Telephone: Southall 2211 (7 lines) · Telegrams: "Legrand" Southall*

The most comprehensive and expert service in COPPER ROOFING



For more than 100 years we have specialised in laying copper on flat roofs, pitched roofs and domes. All our work is executed by craftsmen and apprenticed coppersmiths who have, in our service, an unusually wide and constant experience of every class of copperwork. Many Cathedrals, Churches, Town Halls, Schools, Factories, Hospitals, Piers and Docks provide testimony to the varied and skilful service which we can offer. Our technical staff is available for consultation; we welcome your enquiries.

MIDDLE TEMPLE *Architect:* Edward Maufe, R.A., Hon. LL.D., F.R.I.B.A.
Contractors: Messrs. Dove Bros. Ltd.

ONE OF THE WIDE RANGE OF
BRABY
ACTIVITIES

FREDERICK BRABY & COMPANY LIMITED
FITZROY WORKS, EUSTON ROAD, LONDON, N.W.1. TELEPHONE: **EUSTON 3456**
OTHER FACTORIES AT: Ida Works, Deptford, **London**, S.E.8. TELEPHONE: TIDeway 1234
Havelock Works, Aintree, **Liverpool**, 10. TELEPHONE: Aintree 1721
Eclipse Works, Petershill Road, **Glasgow**, N. TELEPHONE: Springburn 5151
Ashton Gate Works, **Bristol**, 3. TELEPHONE: 64041. Also **Falkirk & Motherwell**
OTHER OFFICES: 110, Cannon Street, **London**, E.C.4. (Export). TELEPHONE: MANsion House 6034
Queen's Buildings, 10 Royal Avenue, **Belfast**. TELEPHONE: 26509
Palace Street, **Plymouth**. TELEPHONE: 2261

266/26



New Factory at Crawley, Sussex, for A.P.V. Co., Ltd., designed by W. S. Atkins & Partners, London and roofed with Briggs Bitumetal, The Modern Development in Aluminium.

Roofs need no longer be laid in dull drab uninteresting finishes. Briggs Mineral Surfaced Roofings provide a range of attractive colours, each colour permanent and unfading, obtained from crushed natural minerals unaffected by time and weather.

This large modern factory, where roofing security is an important factor, is covered with a cap sheet of Green Mineral which harmonises pleasantly with surroundings.

Ask our nearest Area Manager for the latest technical details of Mineral Surfaced Roofings, adaptable for laying on any deck.

Briggs ROOFS

WILLIAM BRIGGS & SONS LTD

London, Vauxhall Grove, S.W.8 *Regd. Office* **Dundee**

OFFICES & DEPOTS ALSO AT ABERDEEN · BELFAST · BRISTOL
EDINBURGH · GLASGOW · LEICESTER · LIVERPOOL · NORWICH



The Art

OF J. & P. ALUMINIUM SHEATHED WIRING CABLES

is Functional

Not only do they look as pretty as a picture, but they have many very practical advantages. They combine strength with remarkable light weight; they are completely free from condensation troubles; they need no precautions against moisture during installation; and one simple gland is used to enter them into standard conduit boxes with no cutting and screwing of threads or pulling-in of cable.

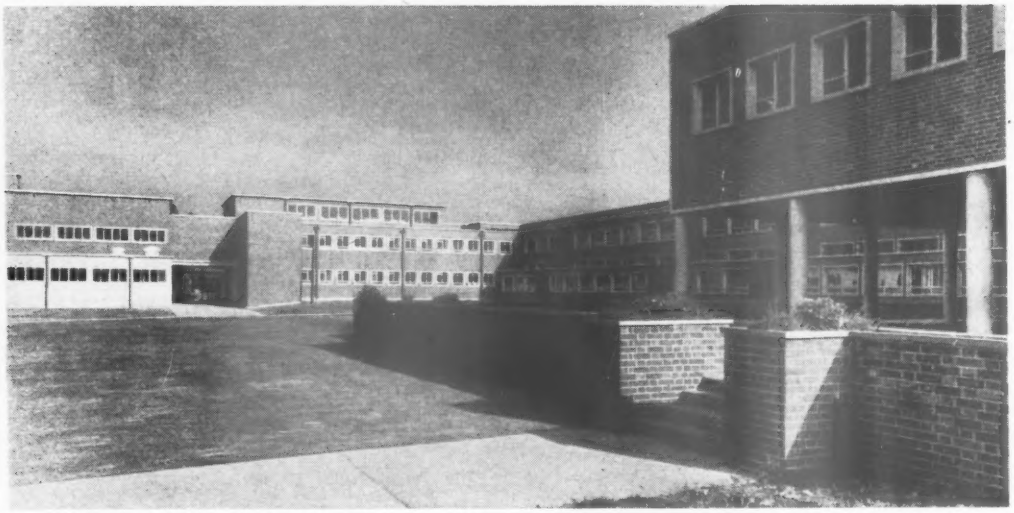
British Patent Nos. 627815 & 627793.

Photograph taken in the switchroom of the B.E.A.'s Carmarthen Bay Generating Station. Contractors: Messrs. R. Alger & Sons Ltd. Newport, Mon.

JOHNSON & PHILLIPS LTD.

CHARLTON • LONDON • S.E.7

ELECTRICAL ENGINEERS & CABLE MAKERS SINCE 1875



GREENACRES PRIMARY SCHOOL for 520 pupils
COLDHARBOUR ESTATE, MOTTINGHAM, LONDON, S.E.9

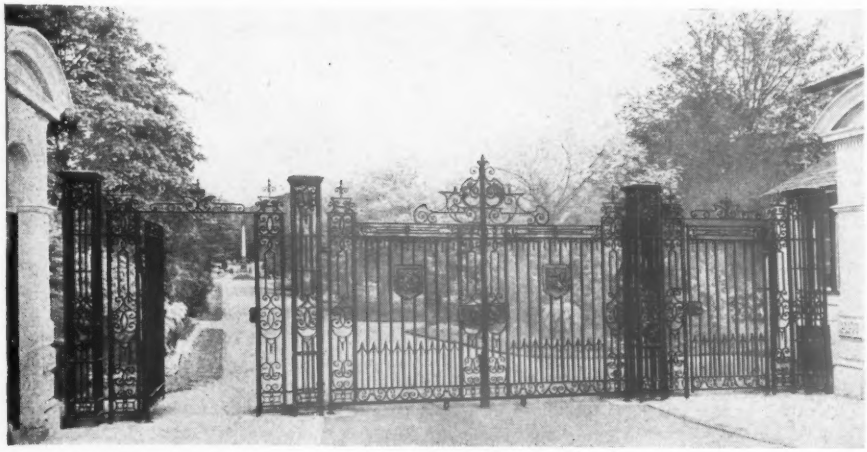
BUILT BY THE **BUNTING** CONSTRUCTION CO. LTD.

71-73 Acre Lane, London, S.W.2. *Tel.: BRIxton 8232*

FOR THE LONDON COUNTY COUNCIL. *Architect to the Council:* ROBERT H. MATTHEW, A.R.I.B.A.

BAKER'S of NEWPORT

for ARCHITECTURAL METALWORK



W. I. ENTRANCE GATES, AT JEPHSON GARDENS, ROYAL LEAMINGTON SPA

SPECIALISTS IN
ALL CLASSES OF RAILINGS & GATES, BALUSTRADES, HANDRAILS, GRILLES, SIGNS, CANOPIES AND LIGHT STEEL STRUCTURES

W. A. BAKER & CO. LTD.
WESTGATE WORKS, NEWPORT, MON.
Telephone : NEWPORT 3145

NOW IN PRODUCTION!

TREETEX DARK COLOUR HARDBOARD

Latest addition to the Treetex family is the NEW Dark Colour Hardboard. Swedish-milled from top quality wood fibre, it's in a class of its own for all types of building construction.

Orders now accepted from Importers for prompt or forward shipment. Samples on application.



MADE IN SWEDEN

- Maximum strength combined with Flexibility
- Smooth surface finish
- Rich brown in colour
- Available in $\frac{1}{8}$" and $\frac{3}{16}$" thickness
- Standard and Flush Door Sizes

TECHNICAL SERVICE

Expert advice on any problem relating to Treetex Products may be obtained on application to the Company. This service is given without obligation.

ASK FIRST FOR TREETEX THE BOARD FOR MODERN BUILDING

Treetex Limited 47-48 Piccadilly London W1

Telephone REGent 1394

down goes the tax...

up go your sales!

With the cold weather still here and purchase tax reduced, THERMOVENT COMFORT HEATING is now easier to sell than ever. Price savings are considerable but your profit remains as high as ever. Now is the time to reap the benefit!



Write for full details of the expanded Thermovent range and NEW REDUCED PRICES, to:—

EKCO Thermovent

Electric COMFORT HEATING

E. K. COLE LTD., 5 VIGO ST., LONDON, W.1

Why HANLO PAT. NO. 590989 *is better!*



Double grip means double strength.



Streamlining gives better appearance.



Can be 'made' in 10 seconds.



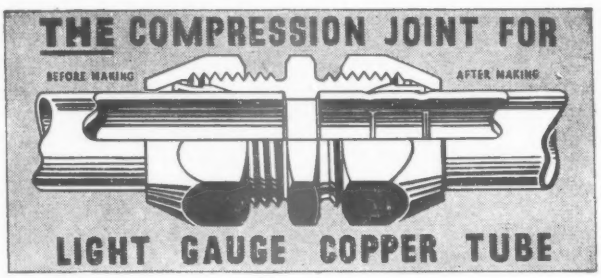
Tested to 5,200 lb. per square inch, hydraulic and still sound.



All castings gunmetal—water-tested.



Can be made and remade any number of times.





The Hanlo Joint is accepted by all leading authorities to be the best joint for all types of household and domestic plumbing, hot and cold water systems, heating and sanitation, etc.

Available in all standard sizes and forms, including straight couplings, tees, elbows and crosses. Special Hanlo fittings can also be made to order. You can't beat Hanlo —the sales figures prove that!

Ask for details of the Hanlo Pillar Cock adaptor.

HANLO PAT. NO. 590989 *—is made by*

Lovell & Hanson Ltd

332, SPON LANE, WEST BROMWICH

Phone: West Bromwich 1681 *Grams*: "Hanlo" West Bromwich

LONDON OFFICE: 2, Countisbury, St. Mark's Hill, Surbiton, Surrey *Phone*: Elmbridge 6262

London Distributors & Stockists

W. N. Froy & Sons Ltd. Brunswick Works, Hammersmith, W.6

The Builders Copper Tube Co. Ltd. 14, Norfolk Street, W.C.2 Temple Bar 4696 (4 lines)

L.G.B

This door furniture works well,

lasts long and suits modern

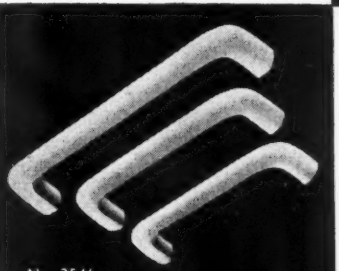
ideas of decoration



No. 2578
DRAWER HANDLE
6" and 8"



No. 400 OVAL KNOB
Rim or Mortice



No. 2546
DRAWER HANDLE
4½" 5" and 7"

★



No. 270a
MORTICE LOCK SET
Lever. Spring-loaded

★



No. 700c LOCK SET
"Mushroom" Knob

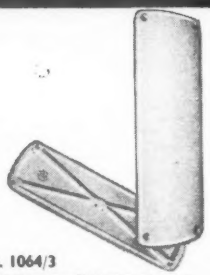


No. 300 CUSHION TOP KNOB
Rim or Mortice

★



No. 280 LEVER
Mortice. Concealed Fitting

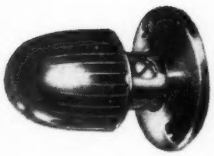


No. 1064/3
MOULDED FINGER PLATE
Reinforced Back
10½" x 2½" and 8" x 2½"

★

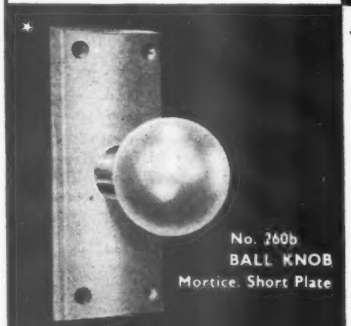


No. 510c LOCK SET
Oval Knob



No. 600
"MUSHROOM" KNOB
Rim or Mortice

★



No. 260b
BALL KNOB
Mortice. Short Plate

★ Models indicated by this star are supplied with the Lacrinoid patent "floating spindle". This dispenses with the need for grub screws and ensures a rattle-free fitting for all normal door thicknesses. The following models can be supplied on request with "floating spindle" and fixed rose: 400, 300 and 290.

Architects and contractors who would like to receive information from time to time about new models should apply to address below

See Lacrinoid door furniture display at the Building Centre, 26, Store St., W.C.1

LACRINOID

TRADE MARK

LACRINOID PRODUCTS LTD., GIDEA PARK WORKS, GIDEA PARK, ESSEX
Telephone: HORNCHURCH 2981 Telegrams: LACRINOID, ROMFORD

A *Flexible* P.V.C. TILE FREE FROM RUBBER

Fibrolene Flooring has proved, after rigorous test, to give complete satisfaction. Judge for yourself from these outstanding qualities.

High resistance to acids, alkalies, oils and greases.

Hard wearing, warm to the tread, fadeless, resilient, non-absorbent.

- FOR HOSPITALS
- KITCHENS
- LABORATORIES
- BATHROOMS
- CAR SHOWROOMS
- OFFICES
- MILK BARS



Imperial Chemical Industries Limited, Billingham Division Staff Canteen. Service Floor behind Cafeteria Counter

FIBROLENE FLOOR TILES

FIBROLENE, HARTFORD MILL, WESTON STREET, BOLTON, LANCS. PHONE: BOLTON 5000

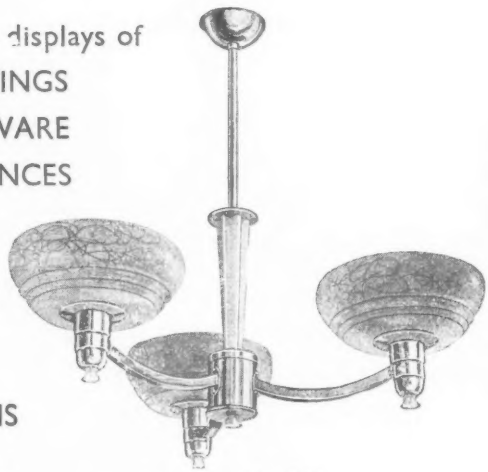
THE WHOLESALE FITTINGS Co. Ltd.



No. 6334
Fitting finished Antique Brass or Chromium Plated. 2 Light 45/-, 3 Light 56/3 each. Plus Tax. Saucers extra according to choice.

We have one of the largest displays of
ORNAMENTAL FITTINGS
LIGHTING GLASSWARE
DOMESTIC APPLIANCES
FANS, ETC.

Available for inspection at our
SHOWROOMS
LONDON
MANCHESTER
AND BRISTOL



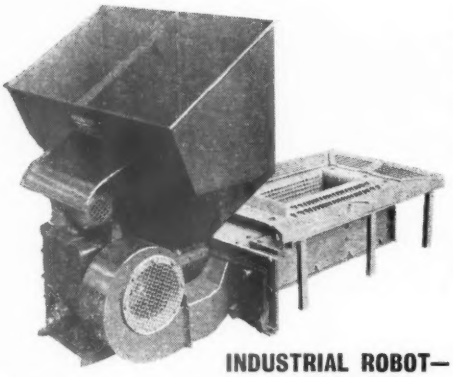
No. 4362
Fitting finished Polished Copper, Satin, Brass or Chromium Plated with Ivory Catalin Decoration. 2 Light 72/-, 3 Light 100/-, 5 Light 147/- each. Plus Tax. Saucers extra according to choice.

HEAD OFFICE: 46, 50 and 52 COMMERCIAL STREET, LONDON, E.1

Phone: Bishopsgate 4356 (8 lines) *Grams: "Calottes Edo., London"*

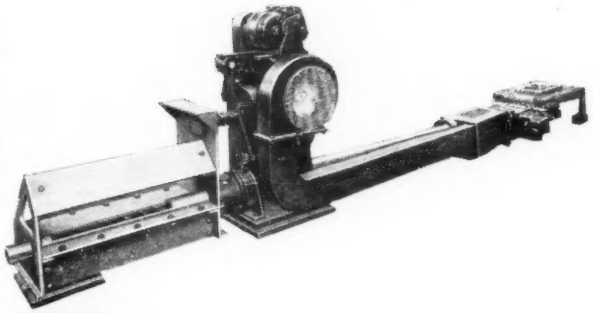
BRANCHES:

MANCHESTER 4: 78-88 High Street
101 Dean Street, Oxford Street, W.1
142 King Street, Hammersmith, W.6
226 High Street, Croydon
9 Station Parade, Balham, S.W.12
BRISTOL 1: 30-34 Colston Street



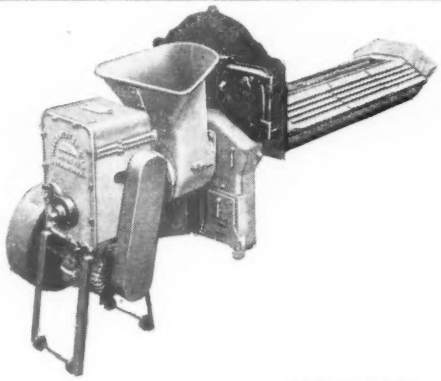
INDUSTRIAL ROBOT—

Hopper feed. For the larger vertical boilers, water tube and locomotive boilers, hot water and steam heating systems and steam processes.



DIREKTO—

Bunker feed. For sectional boilers in domestic hot water and space heating systems. Also for vertical boilers used in steam-raising. Feeds direct from bunker to boiler *below floor level.*

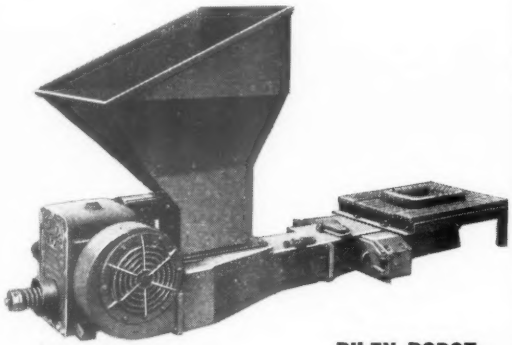


CLASS "B"—

Hopper feed. For Cornish, Lancashire and Economic boilers. Specially designed with grate to fit into circular furnace flues.

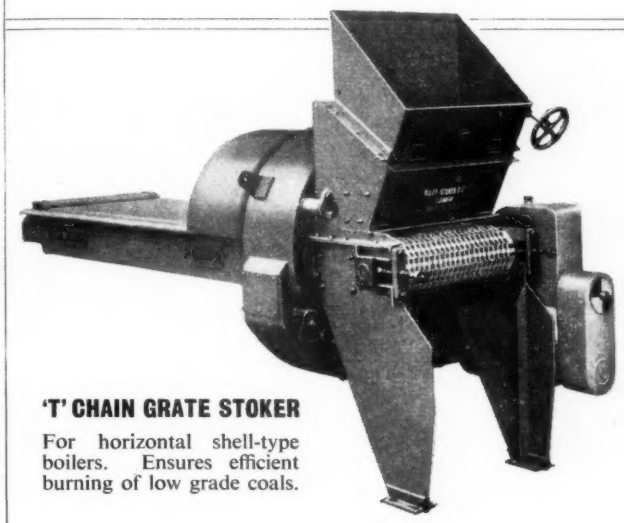
A RILEY STOKER FOR EVERY TASK

To get the best out of a boiler keep it burning contentedly with a Riley Stoker. Over fifty years' experience of mechanical stoking methods is concentrated into every Riley design. Special advantages include efficient smokeless combustion with small bituminous coals, and close control of temperature and pressure to suit the boiler load by automatic adjustments of coal and air.



RILEY ROBOT—

Hopper feed. Suitable for sectional boilers in domestic hot water or space heating systems—and vertical boilers for steam-raising.



'T' CHAIN GRATE STOKER

For horizontal shell-type boilers. Ensures efficient burning of low grade coals.

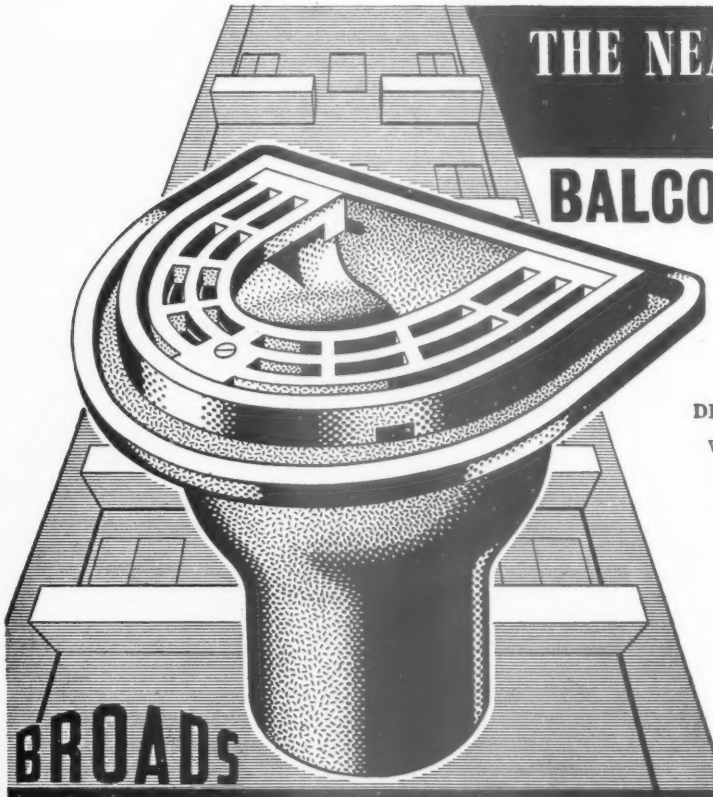
RILEY STOKER COMPANY LIMITED

Mechanical Stokers · Syntron Electric Vibratory Equipment
Member of the International Combustion Organisation

NINETEEN WOBURN PLACE · LONDON · WC1 · TELEPHONE: TERMINUS 2622

R.46A

THE NEAT AND SIMPLE ANSWER TO BALCONY DRAINAGE



BROADS PATENT COMBINATION BALCONY DRAINAGE UNIT IS DESIGNED TO SIMPLIFY THE DRAINAGE OF BALCONIES THROUGH WHICH THE DOWN PIPE PASSES, THUS PROVIDING A NEAT AND UNOBTRUSIVE APPEARANCE.

Manufactured in various sizes to suit rain-water pipe.

(PATENT APPLIED FOR)

INFORMATION SHEET SENT ON REQUEST

BROADS MANUFACTURING CO., LTD. 4 SOUTH WHARF, PADDINGTON, LONDON, W.2. TEL: PAD. 7061 (20 lines)

THE FIRST VOLUME TO APPEAR IN AN IMPORTANT NEW SERIES

NOW AVAILABLE

BY THE ARCHITECTURAL PRESS

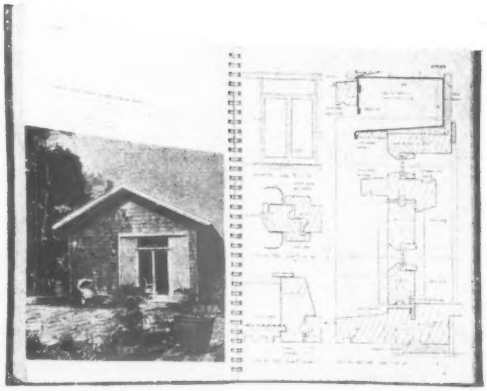
9-13 *Queen Anne's Gate, London, S.W.1*

1

ARCHITECTS' WORKING DETAILS

EDITED BY D. A. C. A. BOYNE

THE PURPOSE of the series is twofold: first, to provide architects and students with easily accessible solutions to innumerable everyday design problems; second, to record the latest stages that the study of those problems has reached and so provide the architect with a time-saving starting point from which he can develop his own improvements and adaptations. The subjects in this first volume include: *windows, doors, staircases, walls and partitions, roofs and ceilings, furniture and fittings, balconies, covered ways and canopies, heating.* The examples are a selection from the series of 'Working Details' which have appeared in *The Architects' Journal*; all are the work of leading architects and show the actual details used in the solution of a wide variety of contemporary problems. In future volumes further examples will appear under each of the present headings, and additional subjects will be introduced; so that the architect will be provided with a cumulative and up-to-date reference library of useful details, recording successful treatments of old and new problems. Each Detail is shown in a large photograph immediately facing its relevant detailed working drawing: the book is specially bound so that when opened at any point it will lie flat on desk or drawing-board; and is very thoroughly indexed. *Volume* 1. *Size* 11¾ *in. by* 8¼ *in.* 160 *pages.* 21*s. net, postage* 8*d. inland.*



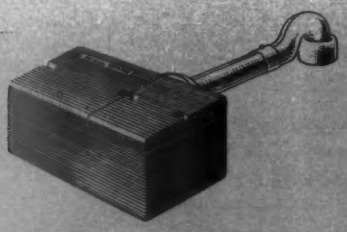
Oil is the modern heating fuel

Nu-way AUTOMATIC OIL BURNERS

With oil comparing favourably with gas and electricity and, when the cost of labour is included, often with solid fuel, Nu-way proudly present their range of oil-burners

Banish boiler stoking with the

FOR THE HOME

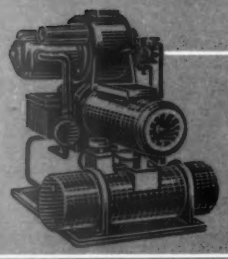


Nu-way "HOME-FIRE" for small independent boilers burning gas oil. Conversions (including tank holding up to three months' supply) approximately £95.

The Nu-way XL for the larger private house. Conversions from £200.



FOR SCHOOLS OFFICES WORKS, etc.



The Nu-way XH Automatic Burner designed to burn the cheaper grades of oil of a viscosity not exceeding 225 seconds Redwood No. 1 at 100° F. Outstandingly high combustion efficiencies.

FOR STEAM RAISING & LARGE BOILERS

Rotavac Burners use the cheapest grade of heavy oil. These operate on the efficient high/low principle, only cutting out when the pressure limit is reached on low flame. This avoids thermal shock as maximum firing rate is unobtainable until boiler is thoroughly warmed. Renowned for ease in maintenance—no troublesome fine jets or filters: no high oil pressure troubles.



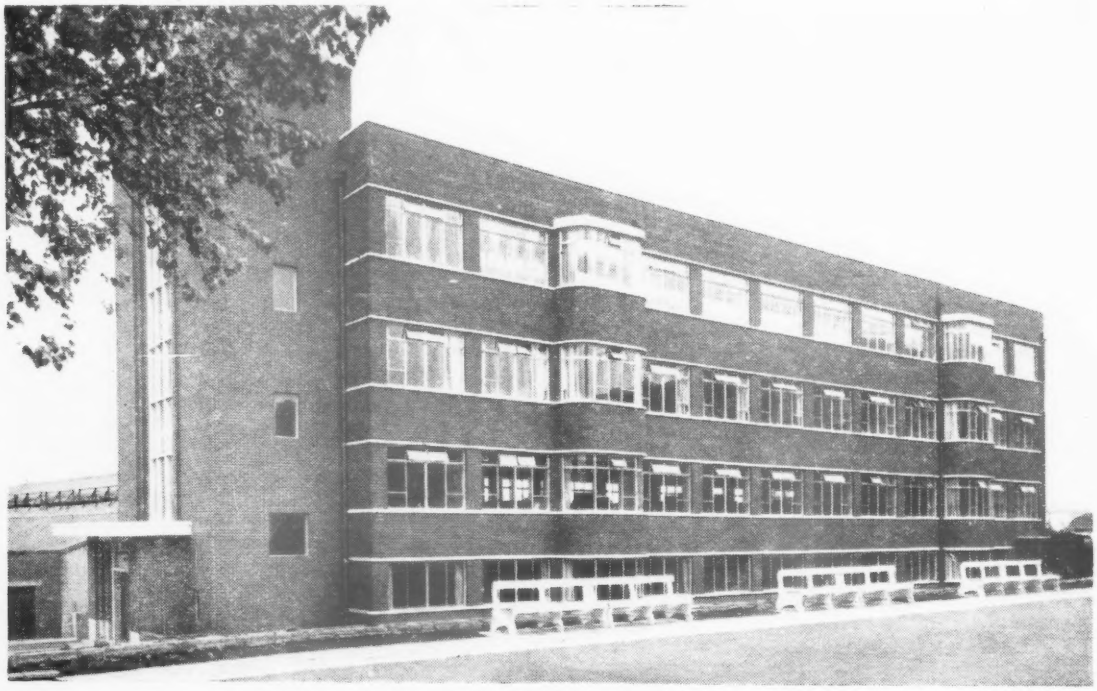
150 dealers appointed in the United Kingdom to give prompt and efficient service in all areas.

Technical literature available on request

Nu-way

THE LEADING NAME IN OIL-FIRING

NU-WAY HEATING PLANTS LTD., DROITWICH, Worcestershire



THERMALITE



THERMALITE
FOR LIGHT WEIGHT · FOR STRENGTH
FOR INSULATION · FOR ECONOMY

in multi-storey buildings

Thermalite has been used in the inner leaf of external walls and in partitions by Messrs. Simon-Carves Ltd., in the new administrative building designed and constructed by them for Messrs. Simon Handling Engineers Limited.

Wall boarding has been fixed direct to Thermalite blockwork between extruded aluminium I sections.

In addition to its high thermal and loadbearing properties, the use of Thermalite facilitates cutting, chasing, and direct fixing.

For further details and technical data:

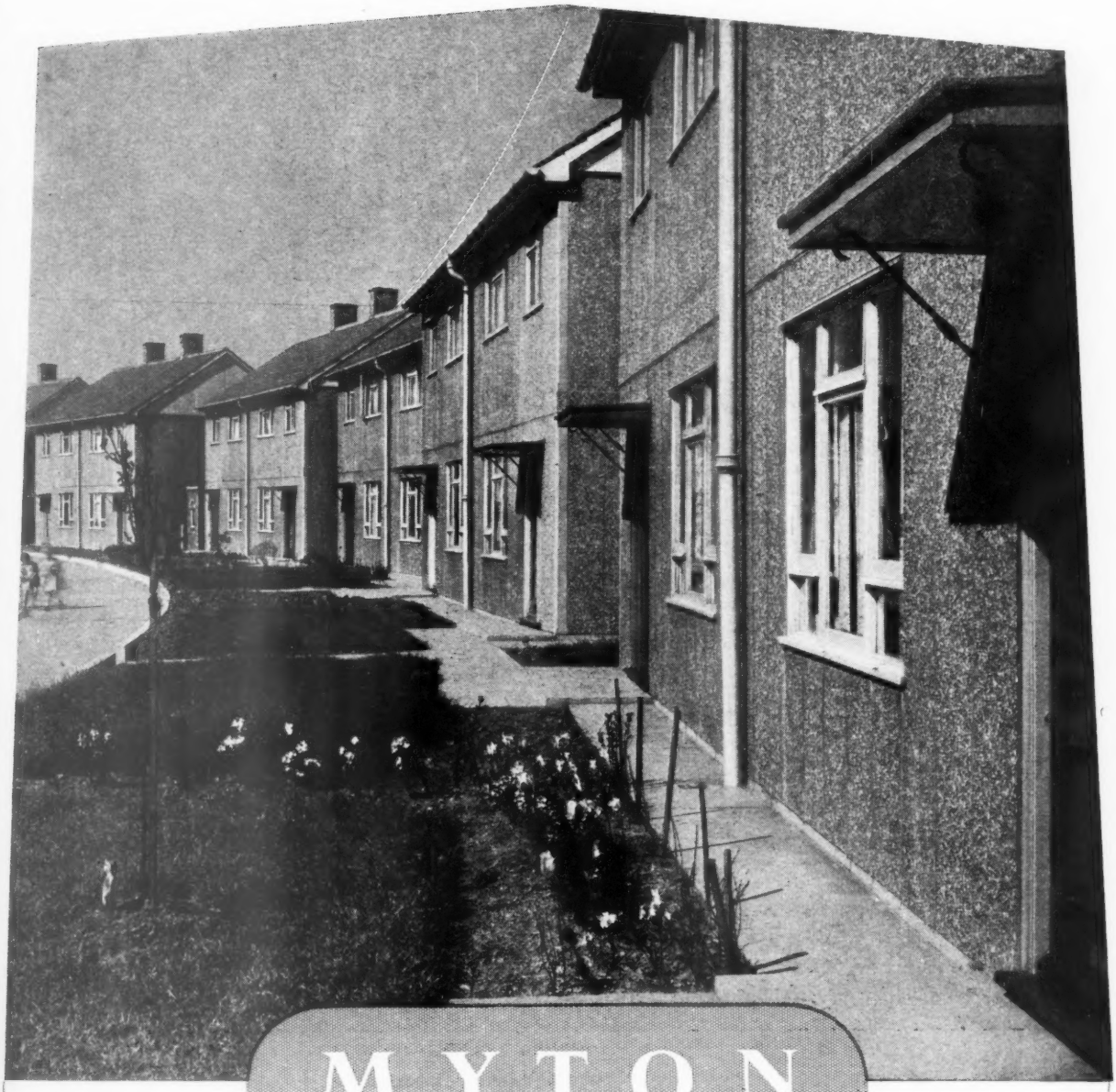
THERMALITE LIMITED

SHEPHERDS HOUSE LANE, EARLEY, READING, BERKS
Telephone: Reading 62694

The Thermalite process which has been developed in the laboratories of John Laing and Son Limited is protected by British Patents Nos. 648280 and 648299 and is patented throughout the world.







MYTON

PERMANENT HOUSES IN THE NEW TRADITION

The Myton New Traditional House is the result of a building technique which effects a considerable saving of scarce materials and site labour, yet maintains the aesthetic appeal of the best traditional architecture. Enquiries are invited for specifications, bills of quantities and plans.

MYTON LIMITED, Building and Civil Engineering Contractors HEAD OFFICE: Newland, Hull.
Branches at LONDON, BIRMINGHAM and SUNDERLAND

POSITIVE EXTRACT VENTILATION

Brooks Pitched Roof Extract Units exhaust to atmosphere vitiated air in winter and excess heat in summer. Airborne dust is rapidly extracted before it has time to settle.



BAHS

BROOKS

PITCHED ROOF *fan-powered* ROOF EXTRACT UNITS

Outstanding features include Extract Units supported by adjustable angle trimmers taking all weight back to roof purlins no weight or windage is, therefore, carried by roof sheeting.

Special asbestos soaker flanges available from all leading Roof Sheeting Manufacturers to suit Brooks Roof Extract Units this ensures permanent weathering and eliminates use of mastic or lead flashing. All doubt is removed about rain and weather entering around roof openings.

Extract fans are driven by totally enclosed ball bearing motors with guaranteed performance.

All Brooks Roof Extract Units are of HEAVY GAUGE STEEL CONSTRUCTION to withstand the standard finish of HOT-DIP GALVANIZING, and are supplied with or without

AUTOMATIC SHUTTERS.

Write for full details.

BROOKS AIR & HEAT SYSTEMS LTD., Trafalgar House, Great Newport Street, W.C.2 · Tel.: TEMple Bar 5124, 5154, 5174.

SPECIFYING ARCHITECTS

SETTLE FOR NETTLE



Nettle Shockproof Electrical Wiring Accessories are being widely specified by Architects on schemes large and small. This is because Nettle have for over a quarter of a century specialized exclusively in perfecting the design of all types of shockproof electrical wiring accessories for industrial and domestic installations. In addition to a very wide variety of lampholders, flush and surface type A.C. switches, plugs and socket outlets, bell transformers, handlamps, weatherproof couplers, rubber-clad weatherproof sockets and plugs, etc., there is a complete range of ring main accessories and many fittings eminently suitable for consideration in architectural schemes. Our specialist engineers are available for consultation without obligation.



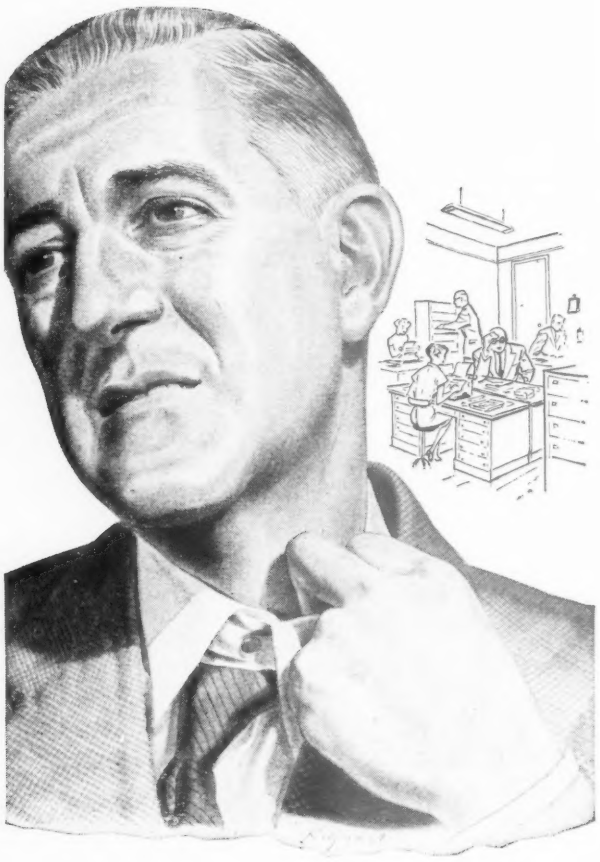
NETTLE

IS YOURS TO HAND?

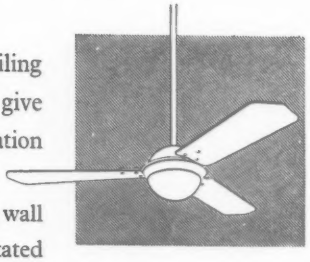
The Nettle Catalogue and Leaflets describing the new all rubber batten sockets are available upon request. These publications should be to hand when schemes involving electrical installation are under consideration. Write now for your copy.

NETTLE ACCESSORIES LTD
HARPER RD., WYTHENSHAWE, MANCHESTER

In times like these ...



put a C.P. ceiling fan into circulation



The C.P. high efficiency ceiling fan has been designed to give the greatest possible circulation of air per unit current consumption. A finger tip wall control enables it to be rotated at varying speeds to suit every condition.

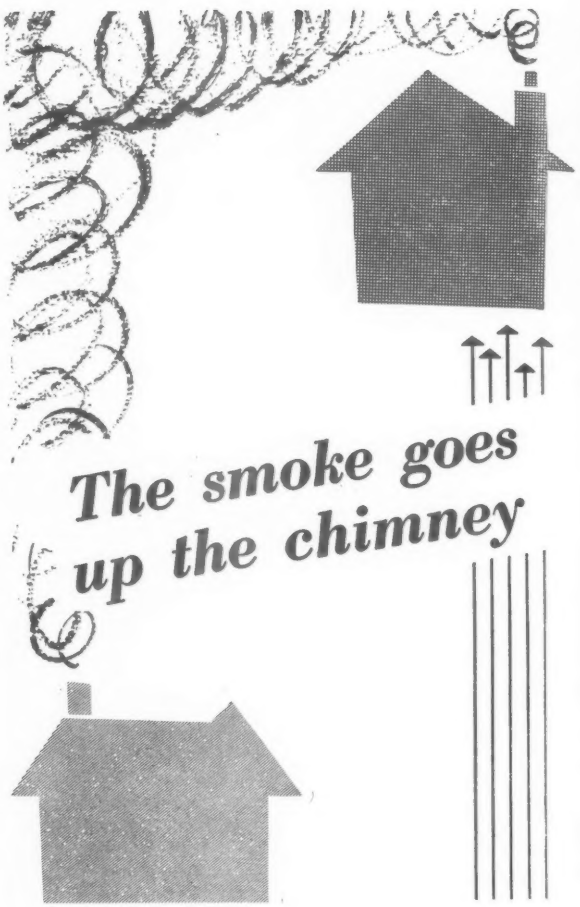
When it comes to electrical equipment . . .

you've got to hand it to

Crompton Parkinson
LIMITED

ELECTRICAL EQUIPMENT

Crompton House, Aldwych, London, W.C.2
Telephone: Chancery 3333



The smoke goes up the chimney

The smoke goes up the chimney, so does warm air, but need it? The Airdun Convector Fire traps waste heat in a specially designed jacket, giving warm air which is distributed to other points in the house requiring heat. Why not incorporate the AIRDUN Convector Fire in your future designs? We will be delighted to advise you regarding specifications, installation, etc.

AIRDUN CONVECTOR FIRE

For full particulars write to
ALEXANDER DUNN LIMITED
Uddingston, Scotland. Telephone Uddingston 500

Purchase Tax facts . . .

Notwithstanding that PURCHASE TAX at the rate of 25% has been imposed on *MARLEY* FLOOR TILES as from the 6th January, 1954, where MARLEY TILES are being fixed by our own Tilers the following increases ONLY will apply

			PER SQ. YARD
A.	Housing	Standard Gauge	11d.
		$\frac{1}{8}$"	1/-
A.	Standard	Standard Gauge	1/-
		$\frac{1}{8}$"	1/1
B.		$\frac{1}{8}$"	1/5
C.		$\frac{1}{8}$"	1/11
D.		$\frac{1}{8}$"	2/1
E.	Housing	Standard Gauge	1/1
		$\frac{1}{8}$"	1/2

Dry rot is eliminated
Sub-floor draughts are impossible
Heat loss is reduced
The floor is complete and decorative
Installation is speedy
Quality is high : cost low

There's nothing like–MARLEY



Cock o' the walk

The Marley Tile Company Ltd., London Road, Riverhead, Sevenoaks, Kent. *Sevenoaks 2251*
Scotland : *Bishopbriggs 1093.* **Wales :** *Pencoed 376.* **N. Ireland :** *Belfast 24447.* **Eire :** *Dublin 51794*
London Showrooms at Alfred Goslett & Co. Ltd., 127-131 Charing Cross Road, W.C.2. *GERrard 7890*

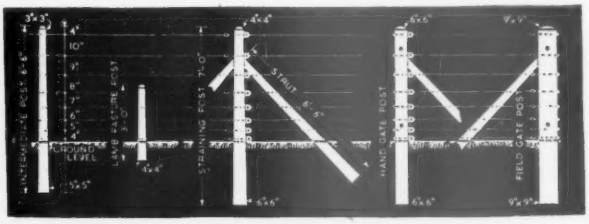
FENCE POSTS

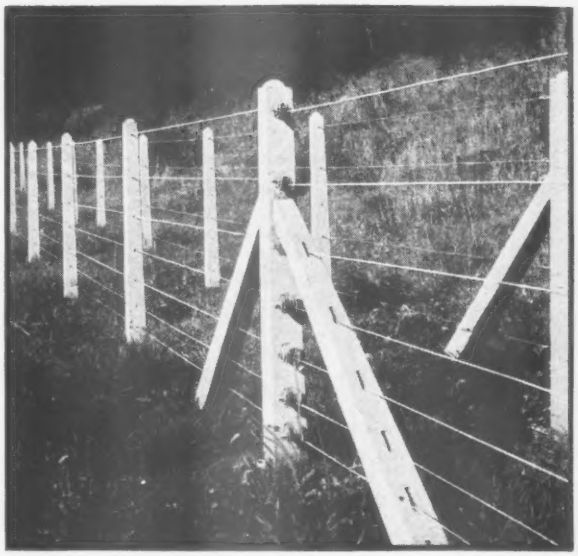
To B.S.S. 1722 for 8 wires at Standard Railway Pattern spacing

9′ 0″ centres is normal practice for these posts but, with droppers in use, centres may be safely extended to 24′ 0″. Gate Posts are prepared to instructions and all posts can be holed for barbed wire outriggers to order.

Description	Size	Weight (each)
Intermediate Post	5″ × 5″ to 3″ × 3″ × 6′ 6″	100 lbs.
End Strainer	6″ × 6″ to 4″ × 4″ × 7′ 0″	175 lbs.
Intermediate Strainer ..	ditto	175 lbs.
Angle Strainer	ditto	175 lbs.
Hand Gate Post	6″ × 6″ × 7′ 0″	250 lbs.
Field Gate Post	9″ × 9″ × 7′ 0″	560 lbs.
Lamb Pasture Post	4″ × 4″ × 3″ × 3″ × 3′ 0″	36 lbs.
Strut	5″ × 5″ × 3″ × 3″ × 6′ 6″	100 lbs.

Heavy and Light Agricultural and Housing Posts are available for lighter wire fences. Other Vinculum Standards include Posts for Chain Link, Tubes, Rails, Pales, etc. Please write or 'phone for particulars and prices.



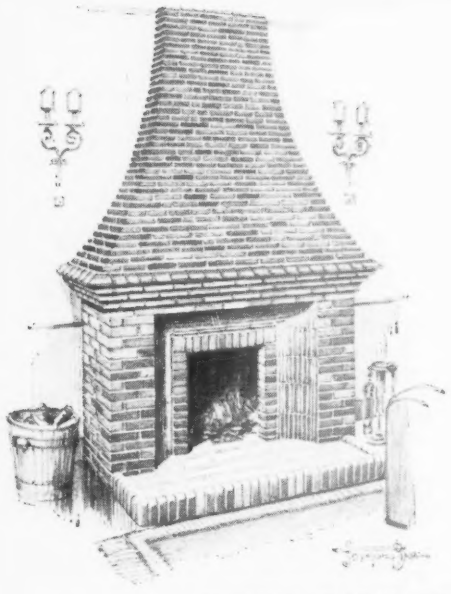


TARMAC LIMITED
VINCULUM DEPT.
ETTINGSHALL . WOLVERHAMPTON

Telephone: BILSTON 41101-11 (eleven lines)

Deliveries are made from our nearest Works in N. Staffs., S. Staffs., Lincolnshire, S. Wales, Buckinghamshire or Sussex.

LONDON OFFICE: 50, PARK ST., W.1. (GROSVENOR 1422-5)



FASHIONS change, but the characteristic beauty of Claygate Old English Fireplaces transcends the vogue of the moment. Moreover, it is of a kind that harmonises perfectly with a very wide variety of interiors.

Should you not find what you require within the extensive range of Claygate patterns available—any one of which may be modified to individual preference—a staff specially maintained for the purpose will reproduce your own designs faithfully and to the letter.

Claygate Fireplaces are readily adaptable for the installation of continuous-burning or intermittent grates, convector or non-convector type.

★ *The latest catalogue of original Claygate designs for fireplaces is profusely illustrated and contains all essential information for architects. A copy will be sent post free on request. Quotations for special designs readily supplied.*

Ideal Home Exhibition, Stand No. 104, Ground Floor, National Hall, Olympia.

Claygate Old English Fireplaces

CLAYGATE FIREPLACES LTD., 7, CLAYGATE, SURREY

SCOTTISH WORKS: BARRIE ROAD, HILLINGTON, GLASGOW, S.W.2



D
T.
ON

ussex.
422-5)





MANDER BROTHERS LTD.

Makers of Varnishes & Fine Colours

This business was founded in 1773 by the Mander family. Members of the Sixth generation are active Directors of the present Company.

The world-wide reputation of Manders has been built up over a period of 180 years by sterling quality and service. The present factory is one of the most modern in the industry.

The latest addition to the Mander Range of Decorative materials is

MANDERLAC ENAMEL

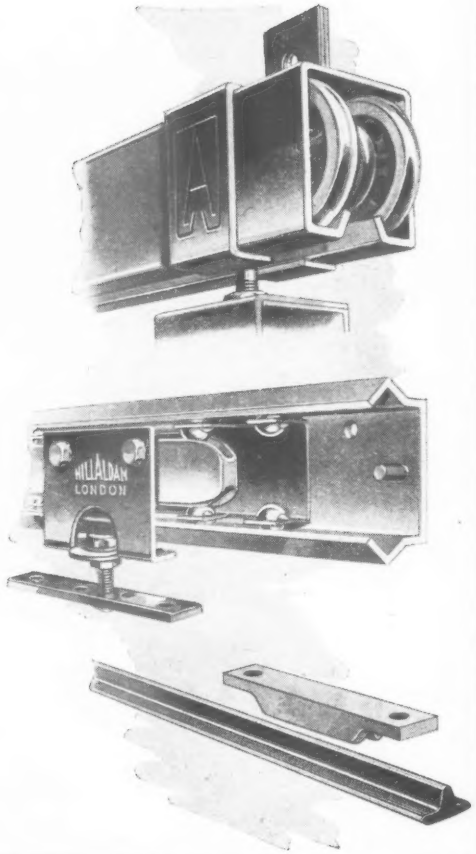
It possesses outstanding qualities, in keeping with Manders' world-wide reputation.

For further information write to

MANDER BROTHERS LIMITED
WOLVERHAMPTON

100

HILL ALDAM
SLIDING DOOR GEAR



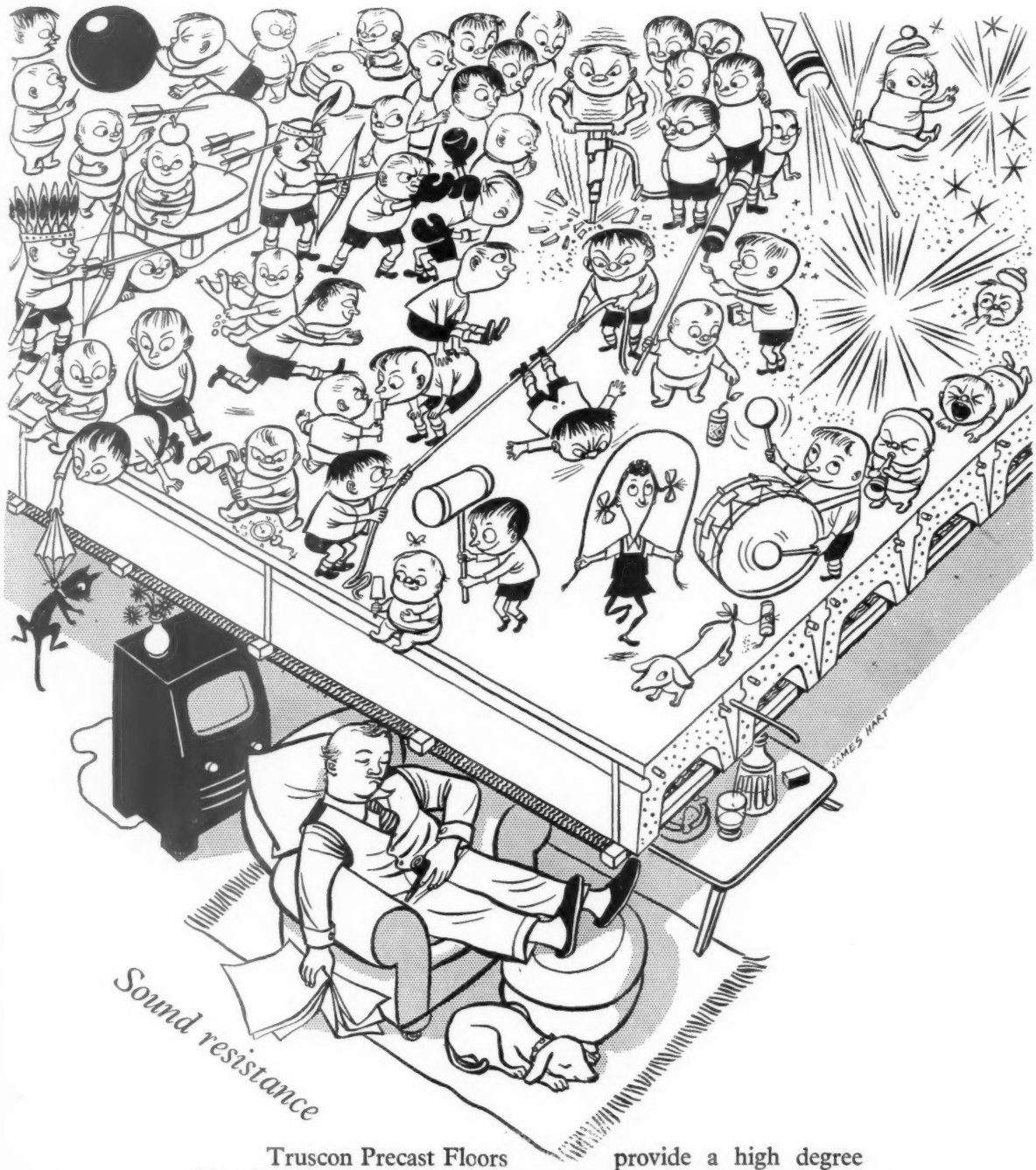
FOR EVERY DOOR THAT SLIDES

E. HILL ALDAM & CO. LTD., BRITANNIC WORKS, EARLSFIELD, LONDON, S.W.18.

Building in Ireland?
STRUCTURAL STEELWORK
by SMITH & PEARSON LIMITED
Newcomen Works, Ossary Road, Dublin



An Extension to the Gresham Hotel, Dublin. Architects: Downes & Meehan.



Truscon Precast Floors provide a high degree of insulation against sound. Many other advantages are achieved by the use of Truscon Floors, full details of which will gladly be supplied on request.

TRUSCON

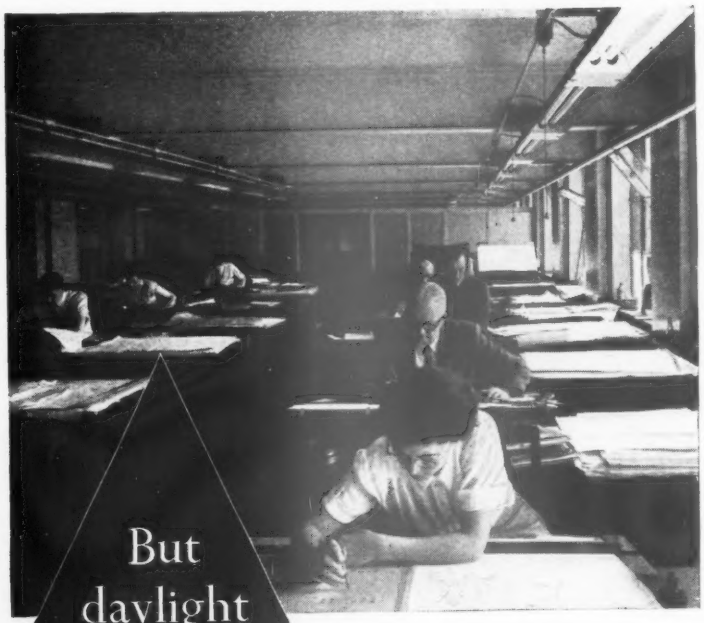
the proved precast floor

THE TRUSSED CONCRETE STEEL CO. LTD.

TRUSCON HOUSE, LOWER MARSH, LONDON, S.E.1.

Telephone: WATERLOO 6922

4·869



But daylight isn't enough for these people

Best Light in the World...

DAYLIGHT

In his report for 1951 the Chief Inspector of Factories said that considerable attention had been paid to schemes for combining artificial and natural lighting. In some workshops the level of natural lighting had been found to vary between 250 and 1 lumen/sq. ft. over a distance of 25 ft.

They would work quicker, more accurately and with less strain if they had better light. Daylight hours present their lighting problems, and Metrovick Illuminating Engineers would be glad to help you solve them.

When daylight fades... **METROVICK**

LAMPS & LIGHTING FITTINGS

METROPOLITAN-VICKERS ELECTRICAL COMPANY LIMITED

St. Paul's Corner, 1-3 St. Paul's Churchyard, London, E.C.4

Member of the A.E.I. group of companies

S F 302

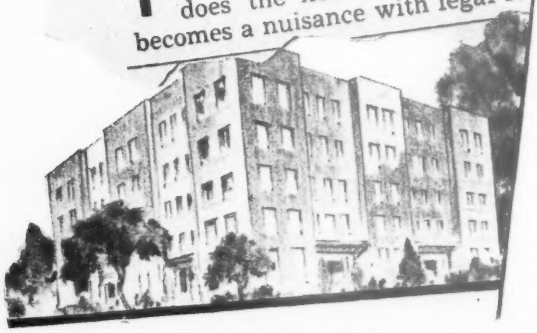
SUNDAY, JUNE 29, 1953

WHEN DOES NOISE BECOME NUISANCE?

QC: 'It is going far to ban

Evening Stand

Three judges in the Court of App
does the noise a neighbour
becomes a nuisance with legal re



...at night'

. . . never if

your architect advises the installation of the superbly efficient J & B MINERAL WOOL . . . the perfect *acoustic* insulant readily available in various forms for a wide variety of purposes . . and remember too that this same most economical material is equally valuable as a *thermal* insulant to save as much as 80% of fuel costs, because it stops heat escaping to waste

J & B **MINERAL WOOL**

The Perfect Insulant

Write to Dept. (S.10) for free Technical Data Sheets

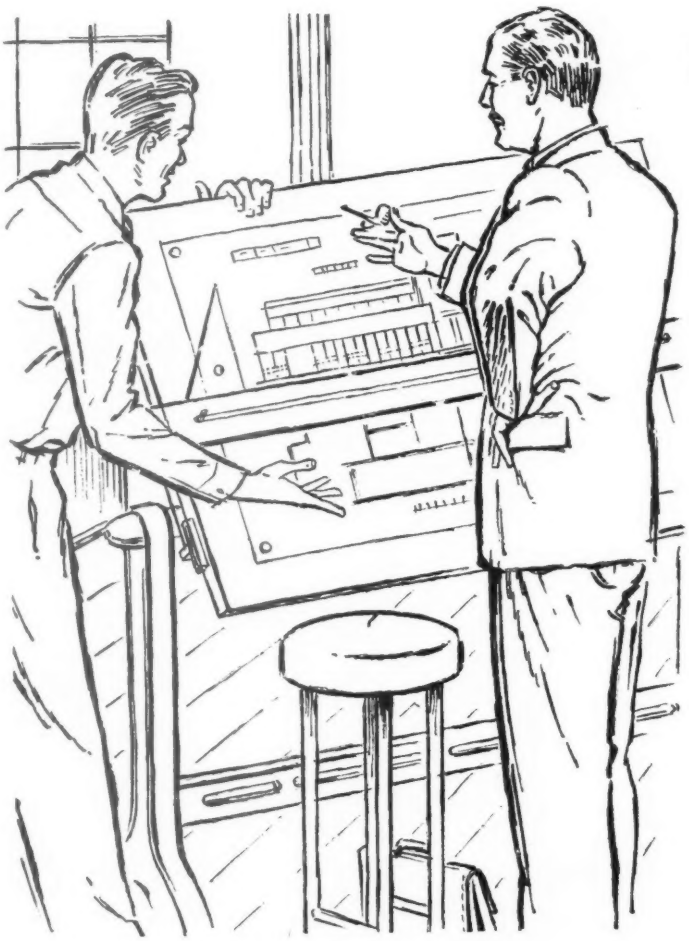
JONES & BROADBENT LTD.,

PERREN ST., LONDON, N.W.5. *Telephone: GULliver 2120, 5548/9*

and at Billingham-on-Tees, South Bank (Yorks), Bristol, Burton-on-Trent, Liverpool and Manchester.

At the *Planning Stage* is the time to call in "Permanite"

IT IS IMPORTANT to use the expert knowledge of specialists when the waterproofing of building structures is being discussed.



We are Specialists in

ASPHALT
ROOFING · FLOORING · TANKING

BUILT-UP FELT ROOFING SYSTEMS

"PERMATILE"

"PERMASUL"

"PERMAC"

"PERMADEK"
Insulated Steel Roof Decking

Our Technical Representatives are available for advice on any waterproofing problems

PERMANITE LIMITED

BIRMINGHAM
220 Kingstanding Road, 22c
'Phone: BIRchfields 5041/2

LONDON—HEAD OFFICE
455 Old Ford Road, London, E.3
'Phone: ADVance 4477 (10 lines)

SALFORD
Stanley St., Salford, 3, Lancs.
'Phone: BLAckfriars 9469

Ascot

the single-minded water heater

The Ascot is an expert. It *specialises* in giving hot water, and this it does more efficiently than any jack-of-all trades appliance.

1 Fuel is burned only while hot water is being drawn. The same water does not have to be re-heated over and over again; *payment is made only for the water actually used.*

2 Hot water flows the instant it is wanted. There's no waiting for a tank to heat up. That means a trouble-free hot water supply all the year round.

3 The supply is inexhaustible; Ascots never run cold. For as long as the tap is turned on hot water continues to flow.

4 Ascots make no dirt or dust, and need no stoking. They are completely automatic.

5 As no fire need be lighted to get hot water the kitchen is always cool in summer.

6 An ordinary open fire and an Ascot multipoint to give an instant, endless supply to three points cost no more to install than a back boiler which supplies three points *only if the tank is hot.*

There's an Ascot for every domestic need, from the inexpensive sink heater to a large multipoint that will supply all the taps in the house.

ASCOT 715

The very latest multipoint model and the world's first Balanced Flue gas water heater. Specified by 41 housing authorities for their own flats and housing schemes.

Has these outstanding advantages :—

1 Beautiful streamlined appearance.
2 Down-draughts into the room impossible.
3 Products of combustion *cannot* get into the room.
4 Completely automatic, 100% safe.
5 Supplies all the taps in the house, and can be coupled to the pipes of an existing system at low cost.



The Balanced Flue Ascot 715 can be installed in a bathroom with complete confidence.

Four of every five instantaneous gas water heaters sold are Ascots. More than a million have been installed in British homes.

That's proof of ASCOT *Leadership*

ASCOT GAS WATER HEATERS LIMITED · 255 NORTH CIRCULAR ROAD · LONDON NW10

A member of the PARNALL Group of Companies

AJ

THE ARCHITECTS' JOURNAL

EDITORIAL BOARD: (1) *Consulting Editor*, F. R. Yerbury, O.B.E., Hon. A.R.I.B.A. (2) *Town Planning Editor*, Dr. Thomas Sharp, L.R.I.B.A., P.P.T.P.I. (3) *House Editor*, J. M. Richards, A.R.I.B.A. (4) *Executive Editor*, D. A. C. A. Boyne. (5) *Technical Editor*, R. Fitzmaurice, B.SC., M.I.C.E., Hon. A.R.I.B.A. (6) *Editor Information Sheets*, Cotterell Butler, A.R.I.B.A. (7) *Editorial Director*, H. de C. Hastings.

GUEST EDITOR (CONVERSIONS): (8) Felix Walter, F.R.I.B.A.

SPECIALIST EDITORS*: (9) Planning (10) Practice (11) Surveying and Specification (12) Materials (13) General Construction (14) Structural Engineering (15) Sound Insulation and Acoustics (16) Heating and Ventilation (17) Lighting (18) Sanitation (19) Legal.

ASSISTANT EDITORS: (20) *Chief Assistant Editor*, Kenneth J. Robinson, (21) *Assistant Editor* (Buildings), L. F. R. Jones, (22) *Assistant Editor* (Information Sheets), Lance Wright, A.R.I.B.A., (23) *Photographic Department*, E. R. H. Read, H. de Burgh Galwey, (24) *Editorial Secretary*, Monica Craig.

* To preserve freedom of criticism these editors, as leaders in their respective fields, remain anonymous

9, 11 & 13, Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

No. 3075 February 4, 1954 VOL. 119

Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free, 1s. 3d. Special numbers are included in Subscriptions; single copies 2s. post free 2s, 3d. Back numbers more than 12 months old (when available), double price. Half yearly volumes can be bound complete with index in cloth cases for 25s. 0d.; carriage, 1s. extra.



CITY BUILDING

Having worked himself into a lather—or at least a mouth-foam—of enthusiasm in support of Sir David Eccles's plea to the city fathers to do something original about the rebuilding of the City of London, ASTRAGAL was delighted to find a hard-hitting article on the same theme in (how did you guess?) the *Economist*. He was delighted, because the reply he himself normally gets, when he suggests to a city father that Neo-Georgian isn't the only answer, is quite unprintable, but usually includes something about sanguinary æsthetes, and one would have to work hard to accuse the *Economist* of æstheticism. That paper realistically points out the difficulty of getting over-all improvement in the teeth of piecemeal land-ownership, and by examining what has actually happened in towns like Plymouth and Coventry, shows that the price of order is the exclusion of the small trader. Nevertheless, it suggests that the example of Coventry is vital, for its "modest success has been primarily due to an atmosphere favourable to planning a council willing to support its architect through thick and thin, a political atmosphere in which the objections of private developers could be successfully overcome."

*

Having noted elsewhere that "it is not general for an architect to head the planning department," the *Economist* concludes that what the City needs is a new Wren. ASTRAGAL would like to go a bit further and say that what it really needs is a new Nash—someone who could rely on the authorities to look the other way while he got on with the unspeakable skulduggery and financial crookery required to push his scheme through. If Nash had waited to get everything legalized, instead of risking his own money in speculating ahead of development, Regent Street and Regent's Park would never have been finished. Verb, one fears, sap.

EARLY WRIGHT

What, one wonders, is the protesting Peter Quennell feeling (remember his letter to *The Times*?) now that the photographs (see page 156) of Frank Lloyd Wright's design for a building on the Grand Canal at Venice has at last been published. It is revealed as a modest, disciplined, marble-faced little structure in the early 20th century manner of the Master. It strikes no attitudes and makes no rude faces at anyone. To judge from the pictures, which *The Times* came out with last week—a minor journalistic scoop, it will bed down very happily with its neighbours—some might say even more happily than the rather shabby little building it replaces. And while ASTRAGAL is all in favour of public controversy over buildings-to-be—no matter if some of it is prejudiced or ill-informed—he thinks that this time the critics are put to flight. The same cannot be said of Dover, but let us draw a breath and have a new title before saying what *can* be said.

STILL HOPE FOR THE BLUEBIRDS

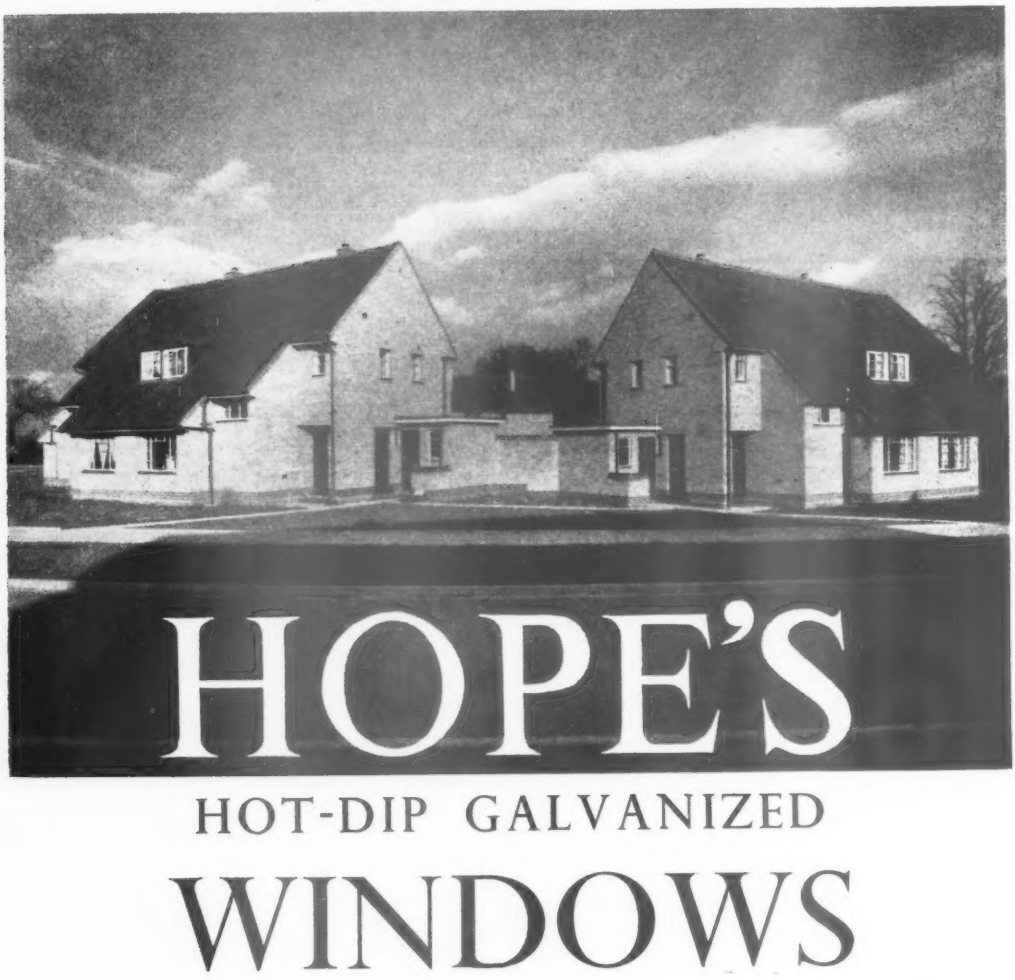
The Royal Fine Art Commission having roundly condemned the proposal to build a continuous line of multi-storey flats along the waterfront at Dover, and the Dover Corporation having promised modifications, it now remains to be seen whether these can be made to satisfy the critics.

*

Let it be clearly understood that the plea of the RFAC is not the negative kind that they and other bodies which perform the rôle of watchdog on the public's behalf often find themselves called upon to make, in order to preserve some famous site unbuilt-on. There is nothing wrong about the principle of using this site for housing; indeed, it was occupied until recently by some unusually agreeable early nineteenth-century houses. What is complained of is the design of the

BURTON HOUSE ESTATE, WOLVERHAMPTON RD., STAFFORD

Sandy & Norris, Architects & Surveyors



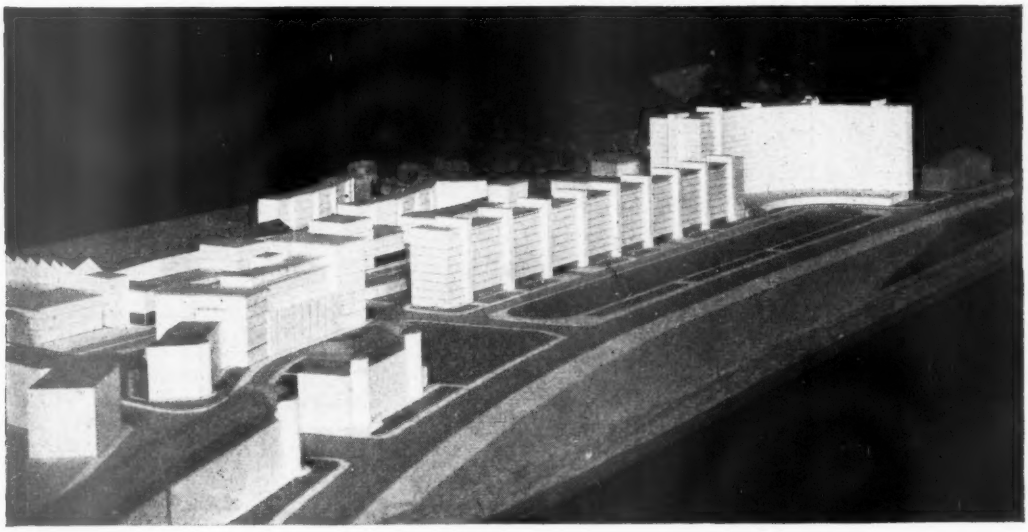
HOT-DIP GALVANIZED

WINDOWS AND STEEL DOOR FRAMES

HENRY HOPE & SONS LTD.

SMETHWICK, BIRMINGHAM AND 17 BERNERS STREET, LONDON, W.1

BIRMINGHAM: 319 BROAD STREET



A model of the Dover flats scheme which ASTRAGAL *discusses in a note beginning on page 145.*

particular scheme that emerged from the architectural competition held a few months ago, and its effect on Dover. The position that has arisen, moreover, raises several issues concerning the use of the competition system for building projects where important matters of public amenity are involved.

*

The critics complain that the tall cliff-like building, placed lengthwise on the site and therefore parallel with the water-front, would cut off the town of Dover from its contact with, and its view of, the harbour, which furnishes Dover's reason for existence and is the source of its civic personality. They also complain that the height of this slab of buildings would be out of scale with its surroundings and would altogether destroy the famous view—the first sight of England to many visitors from abroad—of the water-front, cliffs and castle.

*

Dover Corporation are being asked to think again. They may well feel aggrieved at having to do so, because they acted with conscientious foresight in arranging a competition with RIBA help.

*

The competition system is an excellent way of discovering the best architectural answer to a given problem, but it will be brought into disrepute if awards are made often to designs with obvious defects. At Dover it is not only the judging that is being criticized but the setting of the competition. It was surely essential to include in the conditions a clause calling on competitors to preserve the scale of the surroundings, thus precluding the submission of schemes which, while possessing intrinsic merits that might tempt the assessor to award them a high place, constituted a threat to the amenities of Dover as a whole.

*

It would have been wise if the assessor, or the Dover Corporation, had taken the advice of the Royal Fine Art Commission while the conditions of competition were being drawn up, instead of leaving the Commission to draw attention to the defects of the project after the prize had been awarded. The scheme has now to be drastically modified; moreover, Kent County Council, the planning authority concerned, may well refuse consent in view of the opposition that has been aroused. In either case, the Corporation, and a large number of architects, will have expended time and money fruitlessly.

BEWARE OF THE PUBLIC

Rio de Janeiro—the city where, as revealed by a recent correspondent to the *Sunday Times*, the young architects collect Renoir's as a hobby and drive to work in Cadillacs as well as being treated with respect (that's *really* what matters, isn't it?) is now host to a 3,000-exhibit show of Modern Art contributed by thirty-three countries. Most of the advanced lads are represented, including Henry Moore, and your own, your very own Herbert Read has been acting as one of the judges. Every architect will warmly welcome the award of a special prize to Walter Gropius for "work of international significance in the development of contemporary architecture" . . . and yet, sincerely as one claps and acclaims these honoured stars of the art world who flit from continent to continent, and genuinely as one is proud of the public recognition that now rewards them for their talents, a faint discomfort pricks the mind.

*

There we have what some of you have already asked for—the architect recognized and rewarded, as is his due, on the same scale as the statesman, the scholar and the man of action . . . and yet somehow the applause seems a little mechanical and "miked"—the bouquets wired-up without scent. It's like seeing the photograph of a poet you greatly admire in a glossy fashion-paper, captioned as "People people are talking about."

*

What attitude—it is tempting to wonder—would, say, William Morris or Blake have taken to these international junketings? Would they have been relaxed, encouraged and inspired? Or is this question merely an unfair puritanism among ourselves which would condemn an artist to privacy, withdrawal and no Cadillacs? The answer is, perhaps, that the greatest artist can survive anything—even success in the wrong quarters, that there is not necessarily virtue in



Guest Editor (Conversions) 1954

The proper conversion, care and use of the country's existing buildings is, as announced in this week's leading article, opposite page, the subject for study by the JOURNAL'S Guest Editor for 1954, architect Felix Walter. Mr. Walter is seen above, notebook in hand, examining a typical architectural problem of today : a huge Victorian tenement building with few amenities, by contemporary standards of living, and a carcase which is still as sound as a bell. Such a building is but one example of many building types in village, suburbia and city, whose structural life has lasted much longer than have the standards of living which they were designed to satisfy. The JOURNAL, continuing its policy of annually inviting a new member to its editorial board, has, in Felix Walter, an architectural adviser singularly suitable to tackle the extremely complex problems arising from the conversion and rehabilitation of the country's worn out, and, more often, " used out " stock of buildings. He is the principal of a small private practice in London and East Anglia through which he has had considerable experience of conversion work. Aged thirty-nine, he received his architectural training at the AA. During the 'thirties he worked as a senior, and, eventually, chief assistant in several well-known architects' offices, notably that of Connell, Ward and Lucas, and then with Slater, Moberly and Wren, gaining experience in the design of flats, department stores and hospitals. In 1937, in association with Harry Durell and Colin Penn, he won the first premium in the *News Chronicle* rural senior mixed elementary school competition. During the war he worked for the Admiralty on the design of naval dockyards and buildings in England and West Africa. After the war, following a period of private practice, he went to East Africa for two years, to design a training hospital, for the Tanganyika Government. Since his return to England, and private practice in Ipswich, he has gained considerable experience of that most exacting and unpredictable task : the small building conversion, about which he will have a great deal to tell readers during the coming year.

obscurity, and that as artists must eat, why shouldn't they sometimes eat very well? But they should beware, beware, beware of becoming Public Figures.

UP THE REBELS !

Do you ever wonder what happens to unsuccessful competition designs—not yours of course—those moldering monuments to wasted man-hours and brilliant planning solutions lost and gone for ever? The wastage and oblivion have reached such proportions since the war that one cannot help wondering why Professor Bowen said nothing about it in his survey of the Profession. ASTRAGAL, for his part, often wakes up in the night screaming "Too long to go on a standard sheet!" or "Twelve honourable mentions and never a perishing prize!"

*

Now the neurosis is spreading; MARS Group is reliably reported to be worried, and that energetic and faintly subversive body, the AA students' committee, has just had a discussion and exhibition of four of the unsuccessful Sheffield University entries—a useful public service since, for a variety of reasons, Sheffield's rejects did not ever get reproduced in the journals, or the JOURNAL. There was, it turned out, more than could reasonably be discussed in detail in one evening, and after the authors of the schemes had held forth on their general design principles, the open discussion turned largely on the effect of new, large-scale buildings on the concept of a University, and on that old and reliable source of disputation—how far should the interior economy of a very complex building be allowed to register on the outside?

*

It looks as if one scheme would be enough for one evening, and any further activities on these lines, whether organized by the AA or by MARS will probably take that form. MARS are also reported to be thinking up something like an annual *Salon des Réfusés* of competition designs. Good work. Up the Rebels!—says ASTRAGAL, looking round hurriedly the while to make sure that no prominent assessors are about.

ASTRAGAL

POINTS FROM THIS ISSUE

Dover flats : scheme to be modified pages 145 and 147

Frank Lloyd Wright's Venice building pages 145 and 156

Stevenage wants its **Pedestrian Centre** page 157

Illustrations and descriptions of **housing at Chandigarh** .. page 159

The Editors

BUILDING CONVERSION

THE nation is at long last beginning to realize that the present rate of house-building is not going to provide decent homes for present slum-dwellers for many years to come. The Government's Repair and Rents Bill, now passing through the House of Commons, is a somewhat belated, and possibly inadequate recognition of that fact. The country's housing problem, however, is not merely a shortage of houses, or the presence of a vast number of slum houses, but the fact that much of our stock of houses is no longer related in size to the numbers which compose the present-day family, and that many of our houses are no longer sited where people can afford, or want, to live.

This raises the obvious query : what can be done with our very considerable stock of houses to ensure that the maximum benefit for the nation as a whole is obtained from them? We have asked Felix Walter, an architect in private practice, to become the JOURNAL's Guest Editor for 1954 in order to examine the position and present to readers during the year a series of articles on the conversion, repair, and improvement of old houses.

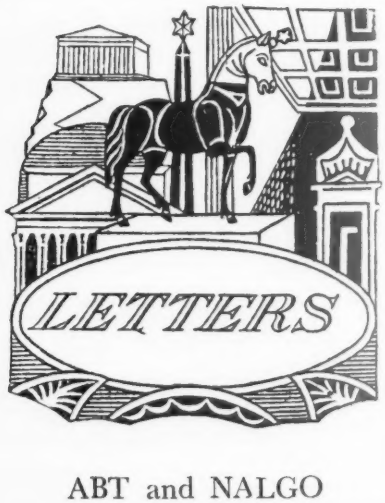
The series will be essentially a practical one. Mr. Walter will show, and comment on, conversion schemes which have already been carried out and describe the planning, building and servicing problems attendant upon any scheme of conversion. He will also deal with all the complicated financial and legal problems, so that readers will be reminded of the valuable professional advice which they can offer the property owner, the tenant, and the landlord.

The picturesque rural slum-cottage, the large country house, the sub-standard terraced house of industrial towns and the immense terraced mansions of the late eighteenth and the nineteenth centuries, the tenement dwelling and the large Victorian villa are all grist, today, to the conversion mill. Many of these buildings have a good many years of sound structural life remaining to them. They represent a very considerable capital outlay by the nation at a time when we, as a nation, were very well off. Now that we are enduring a less prosperous phase it behoves us to make the very best use

of the buildings we have got. The JOURNAL's articles will endeavour to show how this can be well done.

THE VOICE OF THE RFAC

On another page this week ASTRAGAL comments on the Royal Fine Art Commission's disapproval of the design for flats along the Dover water-front. An important aspect of the matter, which must not be overlooked, is that the Commission's views have been made public directly they have been formulated, enabling the issue to be put before a fully informed public. That is how the Commission should normally work. Too often in the past its views have been regarded as the private business of the Commission itself and the building owner or Ministry or local government authority concerned. The Commission's weakness is that it is only a consultative body ; it has no authority to insist upon its views being acted upon. The way to overcome this weakness is to make its decisions public, not private, so that when a building owner or local authority persists in acting in defiance of the Commission's wishes, it shall be widely known that this is what is happening. Only thus can public opinion be marshalled in support of a body which was, after all, set up to act as a watchdog on the public's behalf. The advantages of making public the Commission's views fully and immediately would far outweigh whatever advantage there may be in keeping them private so as not to antagonise people whose future designs the Commission hopes to discuss in a friendly way. To preserve a spirit of co-operation is a desirable thing, but is not an important part of the role of a public watchdog. A well-timed bark will often save the unpleasant necessity of a bite.



F. E. Shrosbree
General Secretary, ABT

"Provincial Architect"

J. H. W. Turner, B.Sc., A.M.I.C.E.

P. B. Wright, A.R.I.B.A.

R. L. Banks, F.R.I.B.A.

Jeremy S. Dodd, A.R.I.B.A.

J. K. Duncan, Associate of Royal Australian Institute of Architects

ABT and NALGO

SIR,—Mr. Davis of NALGO (AJ January 7) states that so many inaccurate statements were made at the "propaganda meeting" held by the ABT that it is virtually impossible to deal with all of them. Mr. Davis has made so many half-statements which hide the real facts that I in turn find it virtually impossible to deal with them all.

For instance, referring to the National Health Service, Mr. Davis states that "NALGO is represented on the Whitley Council; ABT is not." Was it for the sake of brevity that he left his statement there, or was it because he knows full well that the salaries of architects in the National Health Service are not negotiated by the Whitley Council, but by Committee "F" of the Professional and Technical Council "B" on which the ABT is represented?

Again, he states that "If there is a difference between a local authority and its staff, or indeed a single officer, NALGO can report a difference under the constitution of the provincial council . . . ABT cannot." Mr. Davis surely knows that the right of appeal under paragraph 39 of the National Scheme of Conditions of Service is vested in the individual and not in organizations and that any officer or group of officers can report a difference to the provincial council and then nominate what organization they like to be their spokesman. Indeed, it is a cardinal principle of the Joint Council "that the organization he joins is a matter for the unfettered judgment of the individual officer."

I freely admit that the right of appeal is subject to certain peculiar regulations of the National Joint Council on which NALGO holds the majority of seats on the staff side. For example, if an employing authority reviews its establishment and the grading of a post is not varied the officer has no right of appeal; if, however, his grading is improved the officer has a right to appeal!

Mr. Davis is right when he says that the ABT cannot report a dispute to the Ministry of Labour and National Service in respect of local government officers, as we are not represented on the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Service. What he did not explain was that the occasions when a dispute can be reported are few and far between, and are of little significance to the individual officer or group of officers in their relationship with their employing authority. A dispute can be reported only when the appeals machinery of the National Joint Council has been fully exhausted, up to the NJC itself, and there is still failure to agree between the staff and employing sides, a very rare occurrence. The other occasion is when an employing authority refuses to implement a decision of a Provincial or National Appeals Committee—even more infrequent. Indeed, it is significant that Mr. Davis quoted only six arbitrations for architects and they were all for Chief Officers who come within the purview of a separate Joint Committee where no appeals machinery exists. It would be interesting to know how many times NALGO has been to arbitration on behalf of salaried architects who are not Chief Officers.

Nothing Mr. Davis has said, or can say, can contradict what I said at the open forum. The National Joint Council has agreed a salary structure fixing the minima, maxima and increments for grades A.P.T. I to X. They have also said how certain architectural assistants and architects should be graded within that structure up to the newly qualified architect. From there on, in the words of the NJC "the grading of the posts beyond the level of the qualified assistant . . . (is) to be left . . . to employing authorities." It is for that group of officers that the ABT has the same rights as NALGO or any other trade union to negotiate with the individual authority, and does, and our members have the same rights as members of any other trade union to use the appeals machinery and to be represented by the ABT.

I cannot blame Mr. Davis for querying my figures for the numbers employed in local government and the total of architects, etc. The report of the meeting was necessarily abridged but the full statements I made indicated quite clearly that the figure of 725,000 referred to local government as a whole and the 50,000 to the total of architects, surveyors and engineers throughout the country and not just those employed in local government. In fact, I quoted the membership of some of the major professional bodies to show how I arrived at my very approximate estimate for the second figure.

Finally, the meeting was not an ABT "propaganda meeting." It was an open forum to which architects were invited in order to discuss important issues raised in the JOURNAL. There were more non-members than members of the ABT present, and doubtless some at least were members of NALGO. I think it significant that not one voice was raised in defence or praise of NALGO. It is this fact which should be exercising the mind of Mr. Davis and not a lot of red herrings and irrelevancies about

the ABT. The ABT does not claim, and has never claimed, to dominate the staff side of the negotiating machinery in local government. NALGO does. I am sure that architects generally would prefer that Mr. Davis explain why qualified architects in the local government service, of considerable experience and in charge of important building schemes, are still being paid salaries as low as £700 or £800 per annum.

F. E. SHROSBREE

London.

Is The RIBA Any Use ?

SIR,—On looking over your issue of December 17 I was struck by the assertion in your leader that assistant architects would be well advised to stand by the RIBA as their interests are in good hands.

On what past evidence does the JOURNAL base its confidence in the Royal Institute? In twenty years' experience, both in private and public offices, I cannot recall any major improvement in conditions of employment which could be attributed to the RIBA. Indeed, in central and local government such improvements in the salaries and status of architects as have occurred have been brought about mainly by the assistance of non-technical bodies such as NALGO.

This now poses a further question. What return do qualified assistants, especially in the provinces, receive for their annual subscription? I have met few who did not regard the four guineas only as a means of retaining the magic letters which seem such a necessity, nowadays, even to obtain the £500-£600 per year post.

Can the RIBA be satisfied with such a situation where the average young assistant architect pays his fee grudgingly, conscious that in return he will receive twelve copies of the *RIBA Journal*, priced 2s. 6d., and a calendar in which he may be able to trace the movements of his erstwhile comrades? I trust not!

"PROVINCIAL ARCHITECT"

Engineers' Guild

SIR,—In your issue of December 17, 1953, under the title "The Salaried Architect," there is a brief reference to the Engineers' Guild upon which I feel bound to comment because of its misleading implication. The words used suggest that this Guild no longer exists.

The truth, by contrast, is that the Guild today is a thriving organization with an increasing membership and a notable record of valuable work done in the enhancement of the status of the engineering profession. Furthermore, it looks forward with confidence to an important future.

There is, however, a notable difference between this Guild and the ABT which is very relevant to the issues which your article discusses. All the speakers reported in your article aim at the enhancement of the status of architects, and there is unanimity amongst these speakers to bring stronger pressure to bear upon employers, mainly for the raising of salaries. But nowhere is there mention of the principal attribute which contributes towards higher professional status, namely, widespread altruistic service, not only in the interests of the profession, but in good citizenship in the many facets of British democracy. In the Guild we have deliberately eschewed trade unionism and have chosen as our principal aims the unity and public usefulness of our profession. This is not to say that question of salaries and conditions of services are neglected; far from it, but they take a subsidiary place to these greater if less tangible virtues.

A further point is that it is our experience that the proper form of organization to work for enhanced status should not be restricted to employees; rather must it include all practitioners of the profession. On the other hand, it should include *only* those practitioners, and should not include members of other professions. This latter point contrasts with the suggestion made in your article that there should be one organization for all salaried architects, engineers and surveyors.

J. H. W. TURNER.

London.

New Use for 3-D : A Reader Approves

SIR,—John Craig's article (AJ January 21) on the new use for 3-D certainly shows new possibilities for this old picture-book "novelty."

John Adam's technical drawings have presented this medium clearly to the technical mind. The "how-its-done" detail explains the principle well, and shows how simple the method.

The illustration of perspective drawing would be of immense help in schools when the subject is first introduced. It shows it all so simply in one drawing.

Deep- and 4-D-Cullen has obviously grasped the technique and illustrates a new method in humorous drawing, which I suggest might be developed further.

On the technical side again, if this method is to become more popular, would it not be an improvement if each drawing (or photograph) indicated the correct position of the viewers' eyes?

P. B. WRIGHT.

Southampton.

Hutted Airports Not An Economic Proposition

SIR,—In your issue of December 31, ASTRAGAL joined cause with Sir Hugh Casson in praise of hutted buildings and in regret that these were not adopted at London Airport. Their criticisms seem to have been made without regard to the function of the buildings or the problems involved.

To take, for example, one section—the handling of passengers in the NE Face Building:—

The problem is to pass a very large number of people and their luggage through a complex routine in a minimum time, within a restricted space and controlled economically for staffing. Had this been translated into huts the area of ground covered would have been trebled; the time taken for each flight increased by about 15 minutes: the staff doubled.

The central area of 56 acres will be fully built up to deal with a maximum hourly turnround of 70 aircraft. This is not a possible future demand maximum but an air space maximum. Thus in terms of flexibility, neither is the ground available for building extensions, nor can the number of aircraft serving the buildings be increased.

Huts, with their extended services (a large proportion of the total cost) or Hertfordshire school technique, even if appropriate, would probably cost as much, if not more, to build.

R. L. BANKS.

London.

Standardization

SIR,—May I disagree strongly with Henry Braddock's plea for a standardized house (AJ January 14), unless he can show us the way to a standardized site (access from the north, gentle slope to south, etc.!).

However, the need to enable more people to have architect-designed houses for less cost continues. I suggest that we must stop muddling through and adopt the brick's 4½ in. horizontal and 3 in. vertical dimensions throughout our buildings—framed, prefabs, load-bearing brick, etc.—or combination of the two; and throughout our building components.

The sooner manufacturers and architects make this change the sooner we shall be able to ensure savings to our clients.

JEREMY S. DODD.

London.

Architect-Designed Homes Off the Peg

SIR,—In ASTRAGAL'S comments on January 14, he mentioned a cheap plan service that is in operation in Australia. Architects are now generally agreed that it is a very workable answer to the problem, and for your information I give a few brief details.

The scheme started in Victoria, which remains the only State where it is firmly established. It is run by an autonomous body under the sponsorship of the Institute and under the direction of Robin Boyd. This "Small Homes Bureau" has its headquarters in a room provided by a large emporium in Melbourne, who naturally welcome the extra trade that comes their way as a result. Weekly articles by the Bureau are published in the *Argus*—one of Melbourne's "quality" dailies. These act as good advertisement for the Bureau, and as they are general in matter they also provide good background for the profession. Architect-consciousness has made rapid advances since the war—the Bureau and other public activities of the Royal Australian Institute of Architects are considered to be largely contributory—apart from a general improvement in architecture itself.

Architects are asked to submit designs to the controlling panel, which has the right to reject any plan that it does not think up to the required standard, a right which is exercised. The home-builders then go through the sketches of all the anonymous plans in the Bureau and, with the aid of a qualified adviser, select a scheme for their own requirements. Full working drawings and specification are bought for 10 guineas and partial or complete supervision are optional extras. For the purpose of protecting the other architects contributing plans, a scheme is withdrawn after 50 sales—a debatable point.

Despite earlier misgivings, it is now accepted that there has been no effect on the private architect's full-time practice, and it may therefore be claimed that there are many living in an architectural environment who would otherwise have had none. And the Bureau provides the outlet for those young architects with new practices not properly established. They get half of the sale price, the other half going to administration costs. For the last three years there has been a tidy profit of £2-3,000 per annum.

The public gains, the architect gains, the profession gains, so is it any wonder that other states are now experimenting along similar lines?

J. K. DUNCAN.

Cornwall.

BUILDINGS IN THE NEWS

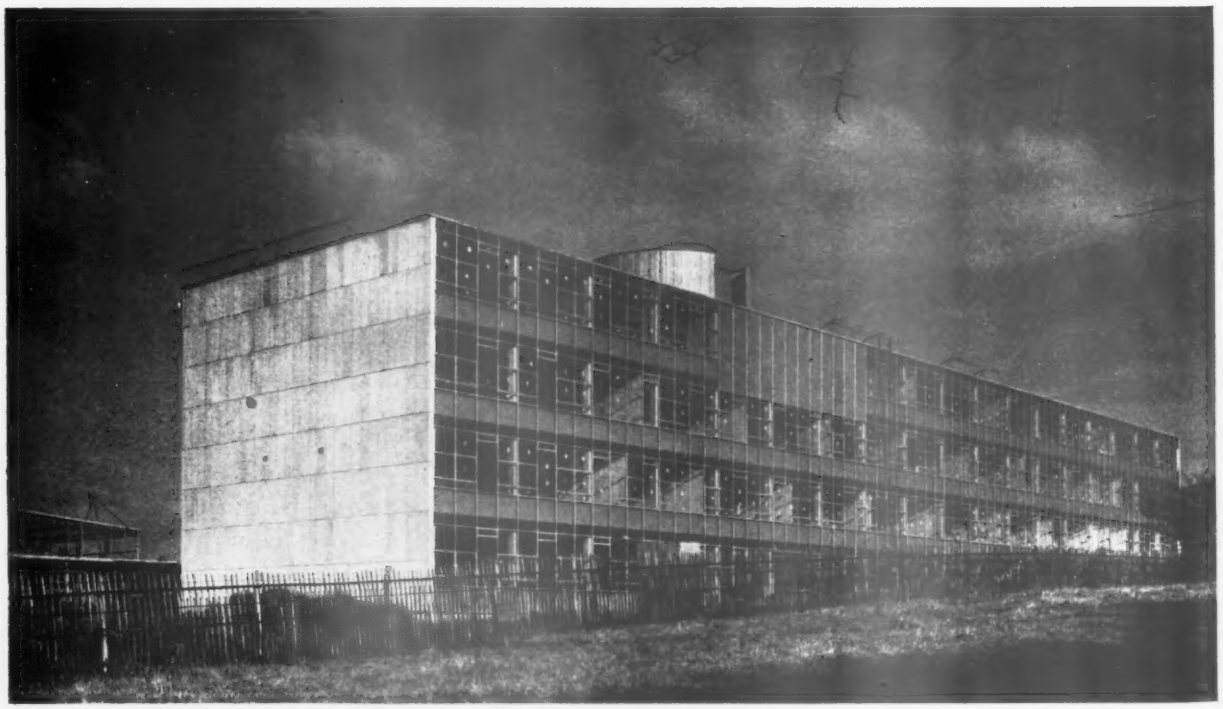


Flats at Barnet

Arundel Court was designed for Friern Barnet UDC by E. Howard Sadler (assistant, T. C. Snow). It houses 36 families, in three blocks, and includes an estate laundry, five lock-up garages, materials store and an enclosed children's play-pen. The sloping site, on which there are many fine trees, is bounded by three roads and is turfed and developed in a park-like character. Cost: approx £66,000

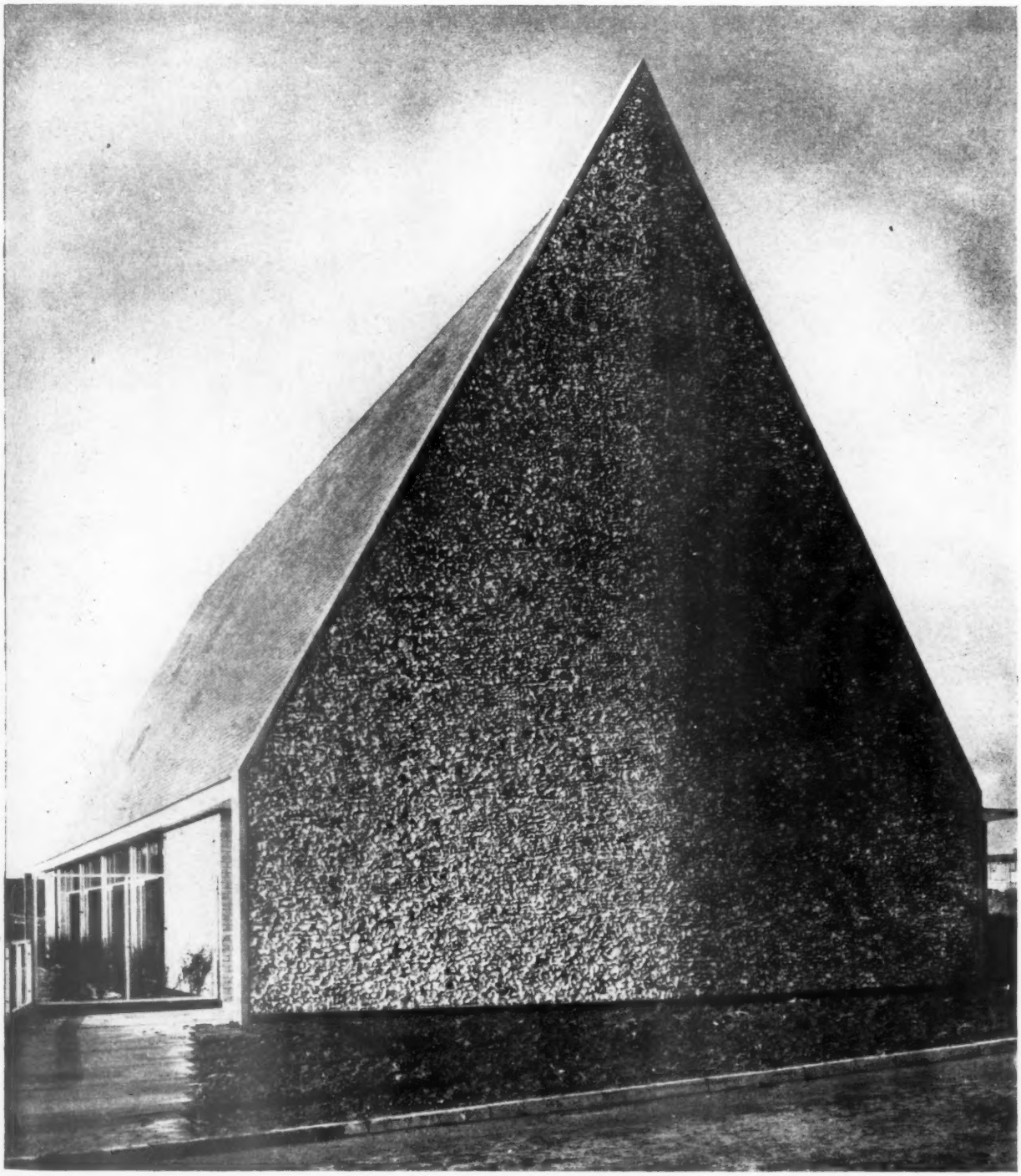
School at Lewisham

The Lewisham Prendergast School, London, S.E.6, now under construction, was designed (for 1,190 pupils) under the direction of Robert H. Matthew, when he was architect to the LCC, and Dr. J. L. Martin, who now, of course, holds that position.



St. Andrew's Church, Stevenage

This dual-purpose building at Stevenage—a church and church hall—was designed by Clifford Holliday, formerly Chief Architect to the Development Corporation; L. G. Vincent, Deputy Chief Architect; D. Stirling Craig and J. H. R. Stevenson, Architects-in-charge. The main hall, which has a chancel and altar at the east end and a stage at the west end, seats 250 people. The chancel can be divided from the main hall by sliding doors; it can then be used as a small chapel while the main hall is used for other purposes. The southern flank wall of the hall (left of picture) is glazed and the east end wall is faced with flint. The building has a r.c. frame and brickload-bearing walls.





NFBTE

Building Research Trials

At the Research Conference organized by the NFBTE in March, 1953, Sir Ben Lockspeiser, secretary of the DSIR, spoke of the need for full-scale trials under working conditions which was frequently experienced in connection with the development of research work. He suggested that the NFBTE might be able to arrange facilities for much more systematic and broadly based trials than was possible at present. Steps to give practical effect to this suggestion were considered at a meeting of the Federation's Building Research and Technical Information Committee held at the BRS, Garston, in December.

At this meeting a possible scheme in which building firms could co-operate with the BRS in determining the practicability of new materials or processes under actual working conditions was outlined by officers of the station. The Committee expressed themselves wholeheartedly in favour of the idea, and a small sub-committee was appointed to work out the details of the scheme, to select members of the Federation who would be both able and willing to carry out the experiments, and to act as liaison between the Building Research station and the individual member during the actual course of the experiments.

The following have been suggested as possible subjects for full-scale trials:—

1. Air-entrained mortars for rendering.
2. Zinc oxychloride treatments for walls infected with dry rot.
3. Lime-tar damp-proof course for solid ground floors.
4. Various methods of reducing the deterioration of domestic boiler flues, to be adopted during repair of existing flues or construction of new ones.
5. Methods of renovating old houses:—
 (*a*) Plastering and decorating on damp walls;
 (*b*) Other matters as they arise.
6. The construction of houses of unrendered lightweight concrete blocks.

Experiments on each of these matters have already been carried to an advanced stage at the Building Research Station and certain practical points of detail remain to be investigated. It is intended that the list should be expanded from time to time as circumstances permit and that builders should themselves suggest new items arising out of their practical experiences. The results of each experiment will be made generally available.

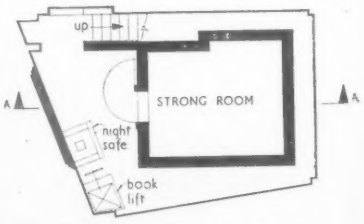
The NFBTE Council has given its approval to the arrangements described and the Building Research and Technical Information Committee has been asked to proceed with the scheme.

BANK CONVERSION IN FINCHLEY



In 1949, Martins Bank, Ltd., acquired the leasehold of a property on a curved frontage at 640, Finchley Road, which was previously used as a dress shop. The alterations have been designed by Bridgwater and Shepheard (assisted by Gordon Michell and G. W. West). The photograph above shows the banking hall seen from the entrance door; below is the manager's room, which is artificially lit except for the thin band of glazing above the panel of Danish wall-paper. On the opposite page: top left, desks for the ledger clerks in an area separated from the passage to the manager's room by a 5-ft. high screen of olive wood; right, the rebuilt facade

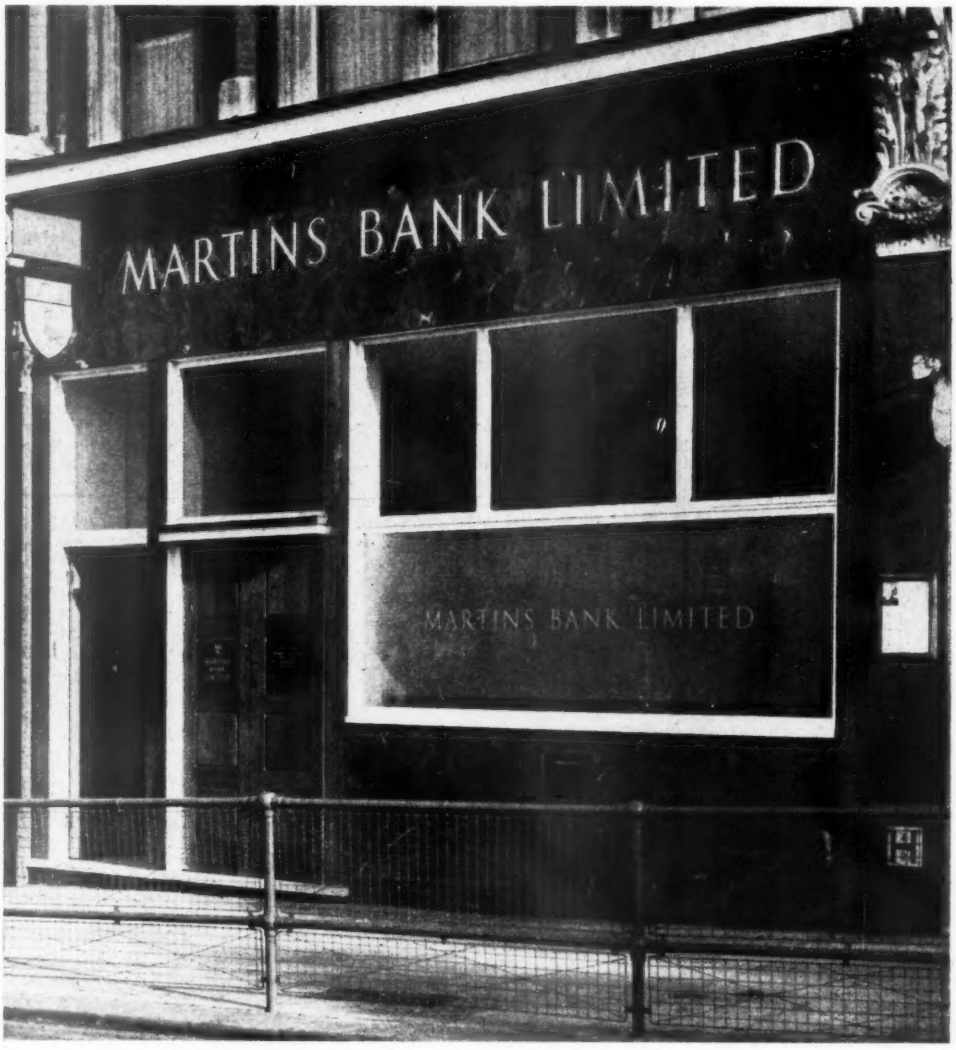




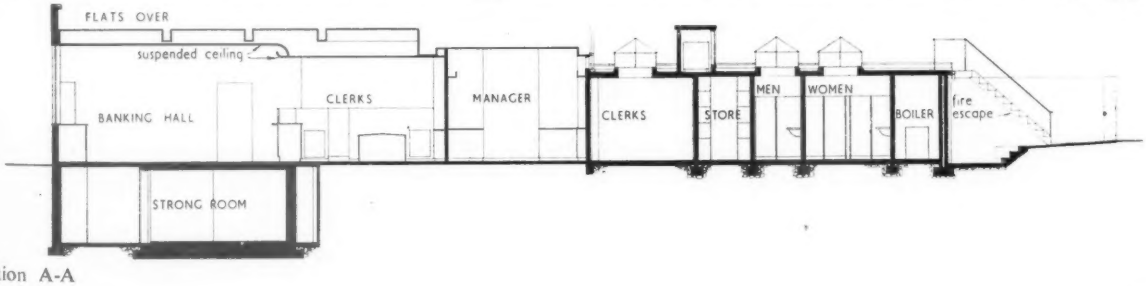
Basement plan [Scale: $\frac{1}{16}$" = 1' 0"]

ROAD, GOLDERS GREEN, LONDON N.W.11

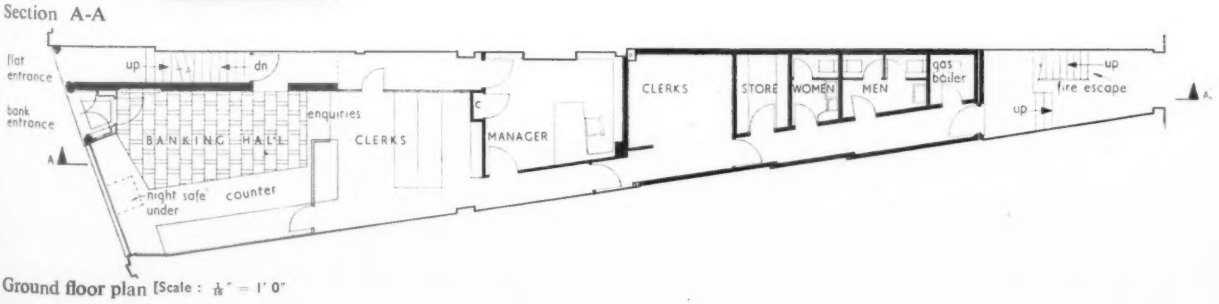




seen from Finchley Road. The door on the extreme left leads to offices and flats over the bank. The frontage of the property is 22 ft. and the wedge-shaped site is 110 ft. deep and narrows to a width of 6 ft. at the rear. The clients required accommodation for a staff consisting of manager, three cashiers and eight clerks. They prefer not to have any counter grilles or other obstructions and favoured the arrangement whereby customers approach the manager's room through the clerk's space. On the main facade the fascia and stallboard are in Tipo Issourie Green, a marble from Northern Italy. Doors and vertical panels between fascia and pavement are in polished teak. In the banking hall horizontal wood surfaces are in Australian Walnut and vertical surfaces are in East African Oliver wood. The general contractors were Mullen & Lumsden Ltd. For sub-contractors, see page 174.



Section A-A



Ground floor plan [Scale : $\frac{1}{16}$" = 1' 0"

BUCKS CC

Planning Enquiry

An enquiry into the refusal of the Bucks CC to allow the construction of a farm building was held at High Wycombe, writes Basil Marriott, on January 26. The project is for a farm "complex", including the farm-manager's dwelling, in woodland on the south side of the road up the Turville Valley. The architect is Erno Goldfinger and the client is a partnership known as Idlecombe Farm. Planning permission was sought in June, 1953, and was refused in mid-July. Notice of appeal was given at the end of August and confirmed shortly after.

The matter must, of course, be regarded as *sub judice* until the Minister has considered the recommendations of F. W. Foster-Turner, the inspector appointed by MOHLG, and made known his decision. But since the proceedings again demonstrated the operation of planning machinery about which some misgivings are felt, it may not be improper at this stage to set out the salient points as they seem to emerge from this enquiry.

After a reasoned case had been put forward by Mrs. Marjorie Abbatt, of the farm partnership, the Council's grounds for refusal (which at present apply only to the farm dwelling) were re-stated by the solicitor, P. L. Seville and amplified by the Planning Officer, H. S. Tong, ARICS, AMTPI, LRIBA. These are that the building, a single-storey brick one of straightforward "contemporary" design, would be out of keeping with the surroundings, of which the "high scenic value" and the traditional architectural character were emphasized.

It further emerged during the enquiry that the main point at issue was the adoption of a butterfly roof, and that the objection to this was primarily, if not entirely, on æsthetic grounds. It seemed agreed that it was hypothetical whether the roof would be visible except "by implication" on end elevation. The building would be 700 ft. from the nearest neighbour, and screening by additional planting was envisaged.

Practical and functional reasons for the roofing system were put forward by the appellants, including the positioning of a fireplace and pipes from it to radiators. Moreover, they felt it to be the best visual solution in relation to site and the mixed local "vernacular", to which points careful and sympathetic consideration had been given. A pitched roof would entail extensive replanning with further delay and cost, the housing of the farm manager also being a matter of urgency.

It was, incidentally, the client who pointed out that the "tradition" of farm building had hitherto been as "contemporary" as possible.

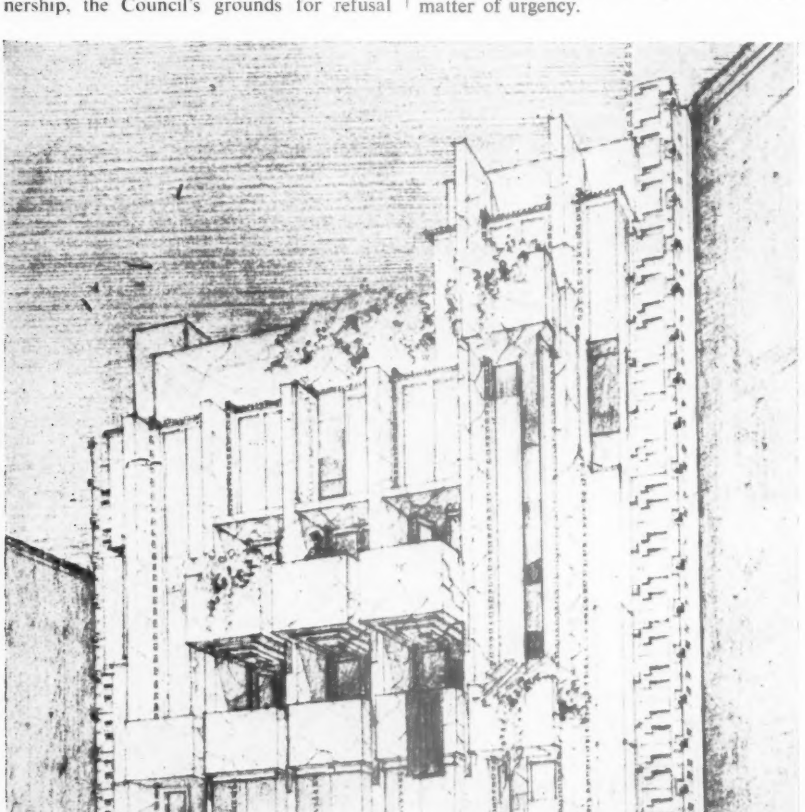
NUFFIELD

Architectural Division

The trustees of the Nuffield Foundation, after consultation with the trustees of the Nuffield Provincial Hospitals Trust, have established, as part of the Foundation's headquarters' organisation, a division for Architectural Studies. The division came into being on January 1, and will be occupied, at first, with continuing investigations into hospitals and with a study of research laboratories. The RIBA has been told of the proposal and has agreed to collaborate.

A controlling committee has been set up to guide the work of the division. The membership of the committee is as follows: L. Farrer-Brown, Director of the Nuffield Foundation (Chairman); Sir William Holford, FRIBA; Dr. F. M. Lea, Director of the Building Research Station, Garston; E. W. Playfair, CB; Sir Ernest Rock Carling, FRCS, FRCP; and Sir William Slater, Secretary of the Agricultural Research Council.

The director of the new division will be Richard Llewelyn Davies, ARIBA (present director of the Investigation into the Functions and Design of Hospitals).



DIARY

The Rebuilding of Blandford after the Fire of 1731. Anthony Avenell. Library Group Meeting at the RIBA, 66, Portland Place, W.1. 6 p.m.

FEBRUARY 8

Shops and Shopping in the Past Two Centuries. Professor A. E. Richardson. At the RSA, John Adam Street, W.C.2 2.30 p.m.

FEBRUARY 10

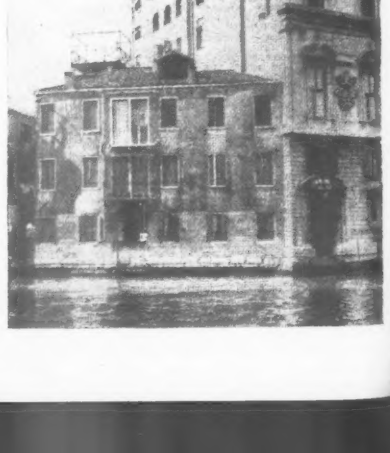
Exhibition of Royal Armoured Corps Memorial Designs. At RIBA. Mon.-Fri.: 10 a.m. to 7 p.m. Sat.: 10 a.m. to 5 p.m.

FEBRUARY 10 TO 20

Fire Research and the Architect. Exhibition at the RIBA, 66, Portland Place, W.1. Weekdays, 10 a.m. to 7 p.m.; Saturdays, 10 a.m. to 5 p.m.

FEBRUARY 10 TO 26

Frank Lloyd Wright's design for a building on the Grand Canal, at Venice. The site is shown below. ASTRAGAL *comments on page 147.*





A street in Stevenage New Town.

STEVENAGE WANTS ITS PEDESTRIAN CENTRE

As JOURNAL *readers will have seen in last week's issue, the Development Corporation of Stevenage New Town have redesigned the proposed town centre so as to have vehicular roads through the middle, instead of having a shopping centre for pedestrians only, as originally planned. The town held a protest meeting on January 15 and a resolution was passed "That this public meeting desires a pedestrian centre for Stevenage." Following is a report of the meeting. F. C. A. Cammaerts, one of the signatories to a letter to* The Times *about the Centre, was in the chair. Sir Roydon Dash, chairman of the Development Corporation, was also present.*

F. C. A. CAMMAERTS (chairman):—The history of this meeting is not at all involved and the subject which we are here to discuss is relatively simple. We shall have a town centre for Stevenage which is obviously a matter of great interest to everyone who lives in Stevenage. It will be a place we shall be constantly visiting and a part of the town of which, I think, we shall be particularly proud.

Originally this centre was designed as a block of buildings including the town hall, the technical college, theatre, cinema, shops and so on, with large roads round this old area, the area inside being free from all vehicular traffic. As I understand it, this plan has recently been changed, and it has been decided to have a motor road which will go through the middle of the town. A number of us were somewhat perplexed by this change of policy, and on the instigation of John Morris we signed a letter to the Press in which we raised the point and invited people in Stevenage to come to this public meeting to discuss whether this change of plan is an improvement on the original plan and, if it is not an improvement, whether the reasons for changing the plan are really valid and justified. That, as I understand it, is what we have to discuss to-night.

The signatories to the letter have informed the four authorities principally concerned; that is to say, the Stevenage Development Corporation, the Stevenage Urban District Council, the Hertfordshire County Council and the Ministry of Housing, that this meeting is to take place, and they have told them that they will inform them of any decision which may be reached by this meeting. We have, I think, invited nearly all the organizations representing different bodies in Stevenage to be present at the meeting and it is gratifying to see how many have attended.

SIR ROYDON DASH: I should first of all like to thank the conveners of this meeting for giving the Corporation an opportunity to be observers here to-night. In replying to my letter of invitation I said we should be very pleased to provide you with any plans, models or anything of that kind.

You have asked me to tell you why we have made this change. First of all, from my point of view this is a legacy, because you will remember that some seven or eight months ago Sir Thomas Bennett gave out at a meeting here in Stevenage the intentions of the Corporation. Briefly, the point is this. It is largely a financial problem. We have taken the advice of experts on the question of shopping values and what we have been advised is that to have a pedestrian centre is an experiment, and an experiment which will have to be paid for in the sense that we are told that the shopkeepers and people who come there will not be prepared to pay the same rents as they would if you had vehicles going through the main street. We have asked a number of valuers and surveyors and they have all corroborated that view.

I think that everybody here knows that the Corporation and its building work is financed by loans from the Public Works Loan Board, and unfortunately we have to pay interest on those loans. That means that our rents must be designed with that in mind. Some of the expenditure which we make is on productive things such as shops, factories and houses which bring in rents, but some of it of course is on unproductive things. That means that we have to make a profit if we can on our productive things and we look for that profit to our shops and factories, rather than having to make a profit on our house rents, and the place in particular where we hope to make a good profit is in our main town centre.

You will realise that from our point of view what we felt was this—that we were not justified in having a centre laid out which would mean a substantial sacrifice of income as we were advised unless we felt that the traffic through that centre would be such that it would make shopping inconvenient and dangerous. Rightly or wrongly, we think that is not likely to happen. As you know, the final decision on this question lies with the Ministry of Housing and Local Government. The Ministry have our scheme in front of them now and they know the reasons why we have put up the scheme in that form. Of course, it is only right to say this, that if the inhabitants of Stevenage want a pedestrian centre, and the Ministry say to us "Very well, you can face the final implications of having one, we do not mind," then I know, speaking for myself and, I think, for the other members of the Corporation, we should rather enjoy carrying out the experiment of a pedestrian centre; but that is a matter which must rest with the Ministry ultimately.

One of the people who attended the meeting wanted to know why the experts had changed their minds

Sir Roydon Dash said that *all* the experts consulted agreed. I was given to understand that not all but the majority of them agreed. There is a difference of opinion amongst the experts. When this question was first raised by the local authority some years ago we were assured that all the experts were in favour of it. We were recommended by the Corporation to support them wholeheartedly, which we did, and I wonder now why this change has come about.

. . . . and got an answer to a different question.

SIR ROYDON DASH: I was not here in those days, and I do not know what happened. There are two sides to this. There is the question of looking at it purely from a planning point of view and also the question of looking at it from the financial point of view. When it comes to letting shops in the street, if you cannot let your shops for the first twenty-one years at your highest rent, whether the place is a success or not the Corporation has

lost that money during that period. That is a difficulty you cannot get over. Everybody we have asked on the question of shopping values tells us the same thing, that we shall not get high rents to start with.

Another speaker asked why rents could not be on a rising scale

I should like to ask whether the Corporation have ever heard of shop property being let on a rising scale. The rental is divided to rise to the maximum at the end of 21 years. Surely that would solve the problem.

. . . . and was given this answer.

SIR ROYDON DASH: We should like to, of course, but in the form of a rising rent it all comes to the same thing. You have to get it over a period, and the person concerned says, "I know what sort of rent I can afford to pay under normal conditions. If you produce unusual conditions I do not know and I shall not give you as much."

An "ordinary tenant" had this to say about the pedestrian centre:

I am an ordinary tenant of the new town and I think the biggest thrill I got was walking round the model looking at what might come to pass. My wife and I went away with the firm conviction that here was a chance to do something which probably has not been done before. I shall dare to challenge Sir Roydon Dash and say that in my view the experiment will succeed. I think you will find that the shopping people—retail and wholesale associations included—will fall over themselves to get to the shopping centre. I hope that we, the people of Stevenage, will be able to look back after living here perhaps ten or twenty years and say we have achieved something which was really worth while and that we have, I hope, a pedestrian centre.

"Death on the road" was the fear of one Stevenage tenant

This town centre would serve not only Stevenage but also North Herts. Apart from that, from the road safety angle this town centre as a vehicular one will be another headache, and as the town grows there will surely be even more deaths on the road.

. and another, a shopkeeper, spoke of the danger to children of building a trunk road

I am a shopkeeper and signed the letter. My shop is in such a position that it is very dangerous for children in the already busy trunk road. In fact I want a safety screen put at the corner, and I think that the opportunity presents itself with the building of a new town centre to do away with all traffic and danger to children in particular. I do not think the fact that it is a pedestrian centre will have very much effect on the rentals offered by chain stores. If there is nowhere else for them to go and the business is there, they will come. The fact ought to be borne in mind that all business men are in business for obvious reasons and not for their health! If they have to pay a very high rental then somebody else will have to pay them in turn, and the person who will pay for it ultimately is the person who shops there.

. . . . while a third made a plea on behalf of pram-pushers:

The majority of residents in the new town at the moment seem to be busy raising families, and when the time comes for mothers to cross the main arterial road with prams and perhaps children running alongside, it will drive them frantic. I for one would be in favour of a pedestrian centre adequately serviced by vehicular traffic, provided that the distance from the alighting points in every case was not too great for people to carry their purchases. No commercial concern can afford to ignore a population of from 40,000 to 60,000, irrespective of what sort of centre they have.

The basis of planning the centre was "a pity" in the opinion of another Stevenage resident:

The subject of our discussion is not only a shopping centre but a town centre, and we must not think solely in terms of shops and the rents which they will bring. This centre is to be a cultural and social centre, as well as a group of shops where we shall spend our money, and it seems a pity that the whole basis of planning that centre should be related entirely to what money the Corporation hope they can get from the shops. I was interested to hear Sir Roydon Dash say that if it were proved that the great majority of residents of Stevenage wanted a pedestrian centre, it is possible even now to get an amendment. It seems to me a pity that it has to be left until this time and for private individuals to provide us with the opportunity of having our say.

"Shopkeepers would not mind paying high rents" said another speaker

This is a growing town and the business man who decides to take a shop frontage and gets in first is the man who will make money. He will not worry what rent he has to pay because he will be in the money. Within this vicinity you have Letchworth, which is one of the first garden cities, but there are no pedestrian ways, except one arcade, and when shopping it is absolutely chaotic. Here we have a situation in which a new town is to be built. Let us put up the sort of centre we want. Why not do what they have done in New Delhi and put up half circular colonnades? It is about time that Stevenage got down to it and made a real pedestrian shopping centre.

. . . . and his views were echoed by the man who thought the centre would be a "golden attraction" for shopkeepers:

I think that from what has been said it is quite clear the great majority of people would like to shop in a pedestrian centre, and the sole argument against it is the very important one, namely, the financial aspect. The facts which we have been given are that four or five years ago one Plan was presented, and we were then assured by the then chairman of the Corporation that all the financial experts consulted at that time said that financial advantages and others lay in a pedestrian centre. We are now told—four years later—that other experts have given a contrary opinion and the plan has been changed. I think that we are left rather in the dark, and we are taking a desperate risk either way. What has struck me in the discussion has been the contrast between short-term risk and long-term risk. If the road is built and is a failure and it has to be pulled down, that is a financial risk as well as an æsthetic risk. Cold-feet finance is always expensive in the long run, but of necessity the Corporation are bound to take a different attitude from the attitude taken by the local authorities and ourselves. The Corporation are only with us for a short term, and therefore have to think in short-term finance. We as citizens are ultimately to bear the responsibilities of financial success or failure long after the Corporation has dissolved. We have therefore to think in terms of the long-term use of this centre. My own hunch is that a centre of this sort with 60,000 people with nowhere else to go is a golden attraction for any kind of shopkeeper. It could be built with old kerosene tins and still be successful!

Finally, someone suggested that rateable value could be "adjustable during the period of growth."

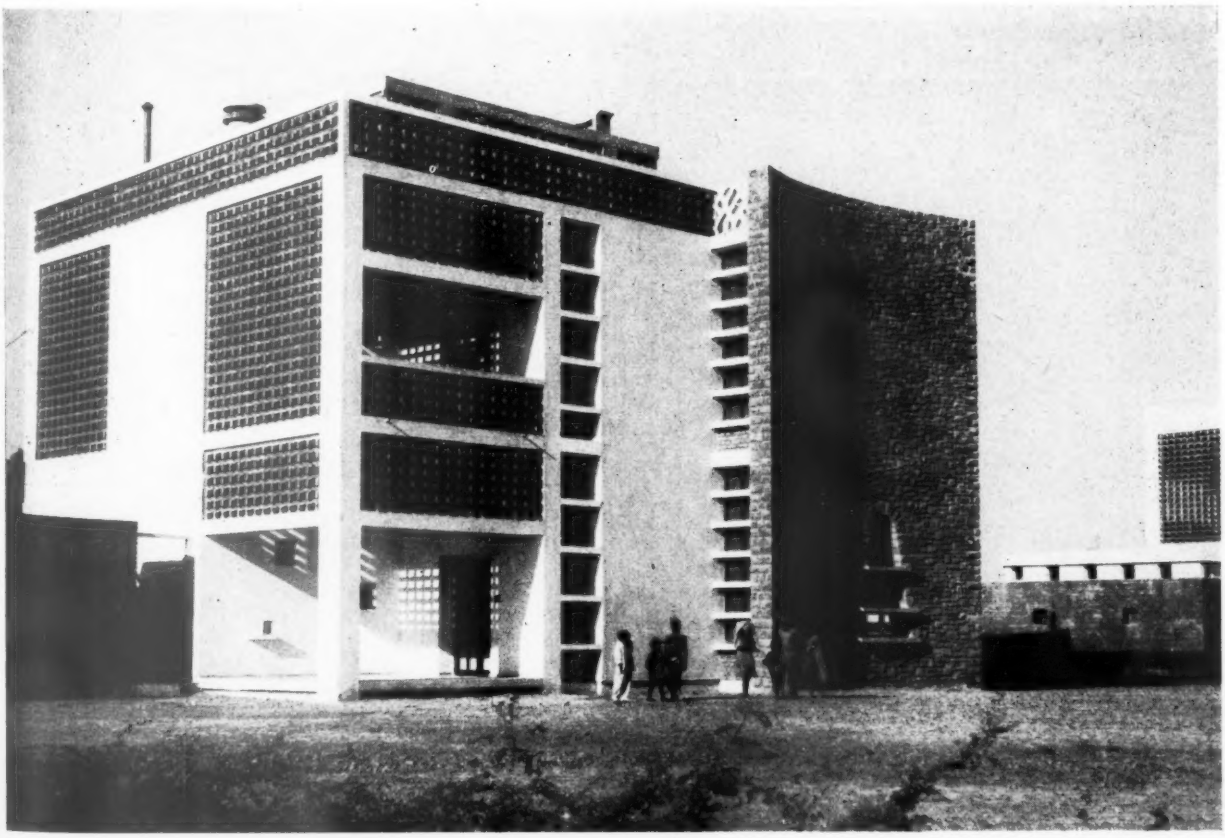
There is no experience which directly relates to this problem. I do not think it is fair to compare an arcade or a short street, which is pedestrian, and the main street which is vehicular, with the kind of set-up envisaged in the pedestrian town centre here. It seems to me that the facts which really count are these. We are going to have a town of 60,000 people or more; there are going to be no other large centres on bus routes anywhere near; 60,000 people will live on the money spent there, and I am absolutely certain that the money will be spent with more pleasure and with more safety in a pedestrian centre. Surely there ought to be some formula by which the rateable value is adjustable during the period of growth.

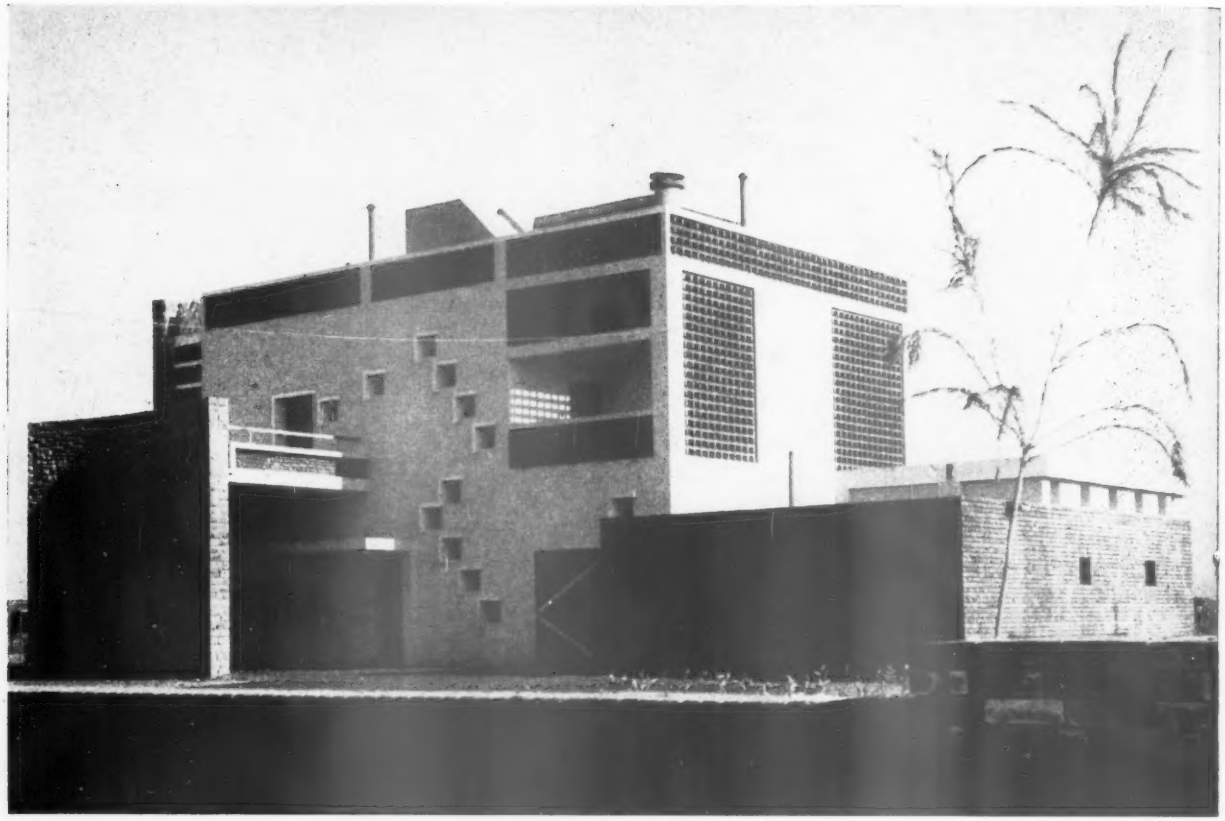
HOUSES

at CHANDIGARH, INDIA

designed by E. MAXWELL FRY; JANE DREW and PIERRE JEANNERET

Some thousands of houses have now been completed in the new capital city of East Punjab, planned by Le Corbusier. They conform to a number of standard types, some of which are illustrated on the following pages. Each type is the individual work of one of the three resident architects. They range from large free-standing houses for senior officials, judges, etc., to minimum terrace houses for the poorest labourers. Below is the back view of one of the larger houses (type 4J) by Jeanneret. Another view of the same house is overleaf.





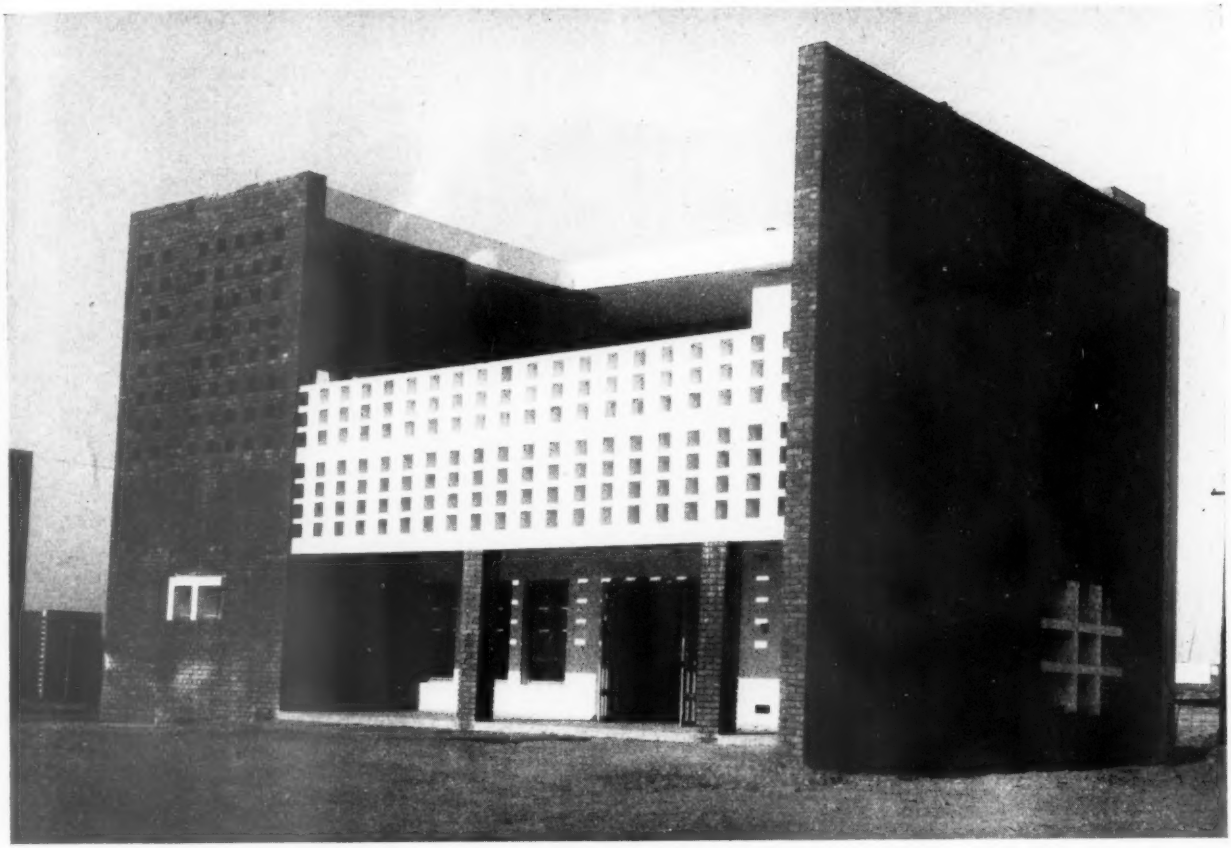
Above, the entrance front and service courtyard of the house (type 4J) also shown on the previous page. Below, a single-storey Minister's house. The entrance with screened porch is on the right.

HOUSES

at CHANDIGARH, INDIA

by PIERRE JEANNERET





Above and below, another house (type 6J) by Pierre Jeanneret. On the upper floors are open terraces screened from the sun by concrete grilles. The lower photograph shows the entrance with the tall staircase window alongside it.

HOUSES

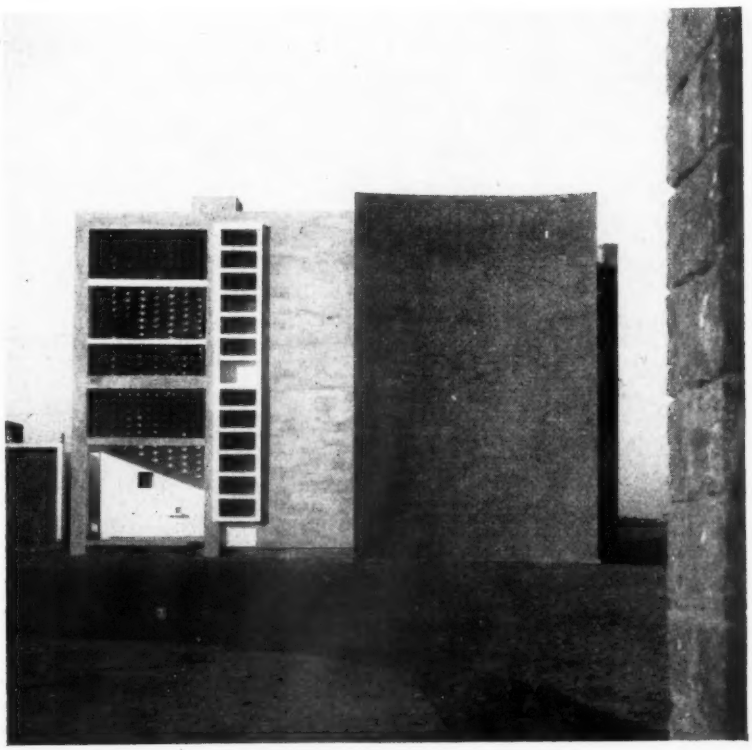
at CHANDIGARH, INDIA

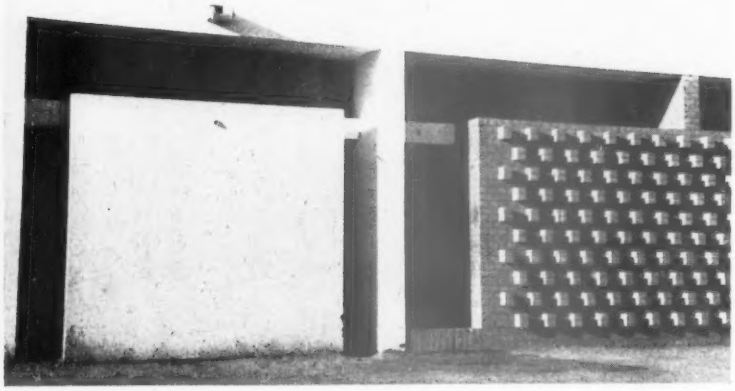
designed by PIERRE JEANNERET

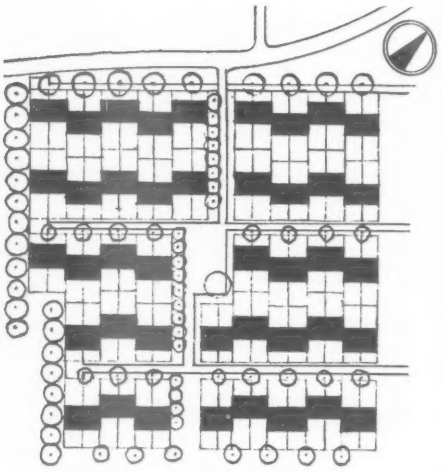
GENERAL.—These houses and those on the following pages, are built of a mixture of brick, precast concrete and local stone. Construction is restricted to this traditional range of materials because of the shortage and high cost of steel. Only the public buildings now under construction at Chandigarh (such as the Law Courts and Secretariat, designed by Le Corbusier) have an allocation of steel sufficient to permit ambitious reinforced concrete structures. In the houses reinforced concrete is confined to the minimum, even many of the lintels and horizontal members of roof pergolas being built up in brick or concrete blocks.

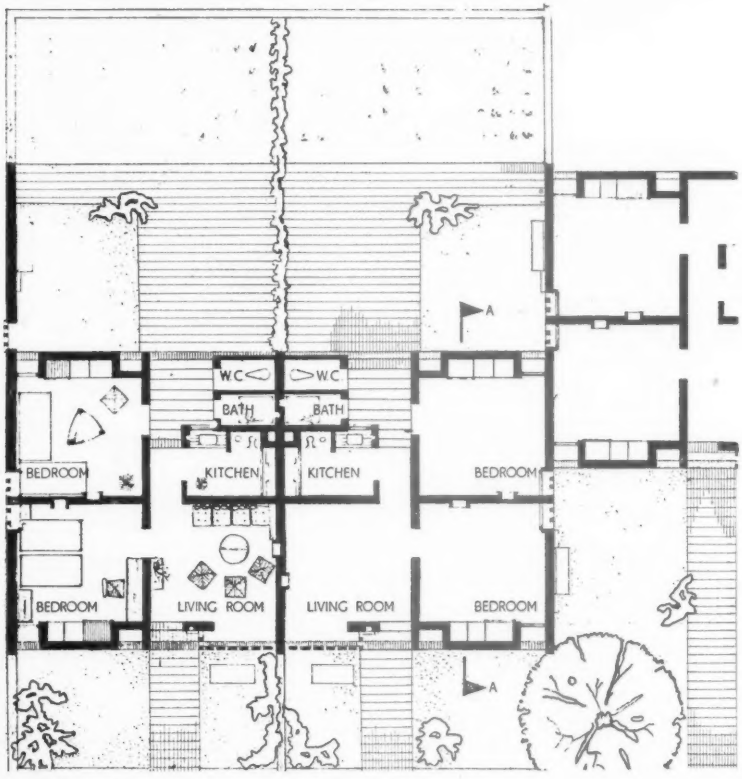
The bricks are made from clay quarried locally, and are of a strong red colour. Colour is also used on the houses—chiefly reds and terra-cottas—in the form of colour washes and coloured concrete.

The planning of the houses is dictated by the climate, the chief consideration being to make the most of the prevailing breezes and to allow free movement of air while protecting rooms and open-air terraces from the sun; hence the frequent use of grilles in bricks and concrete, which have sufficient thickness to keep out the direct rays of the sun when it is at a high angle.

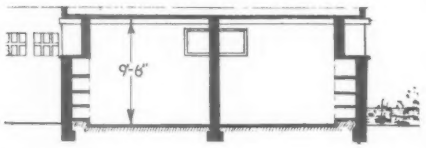








Plan: Type 12J [Scale : $\frac{1}{16}$" = 1' 0"]



Section A-A

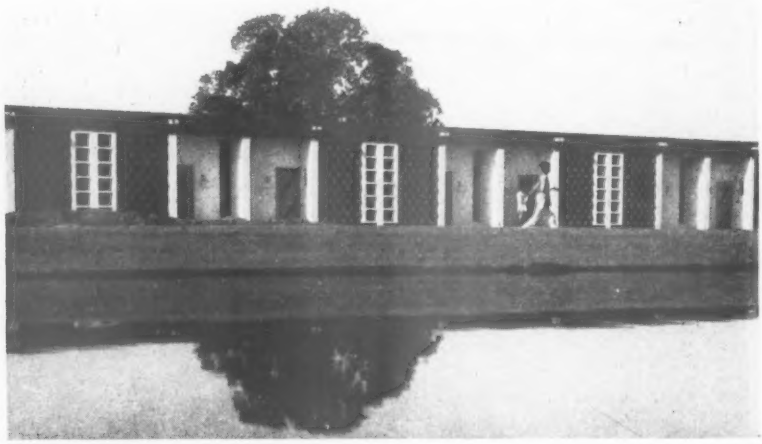
A smaller house (type 12J) with living-room, two bedrooms and kitchen planned on one floor. They are grouped in terraces of four, staggered to give privacy, as shown in the site plan above. The photograph of the entrance front, top left, shows the vertical slit window to the bedroom and the clerestory lighting to the living-room. Below this window, the wall is solid, with a pattern of projecting bricks to break up the sunlight and prevent over-heating.

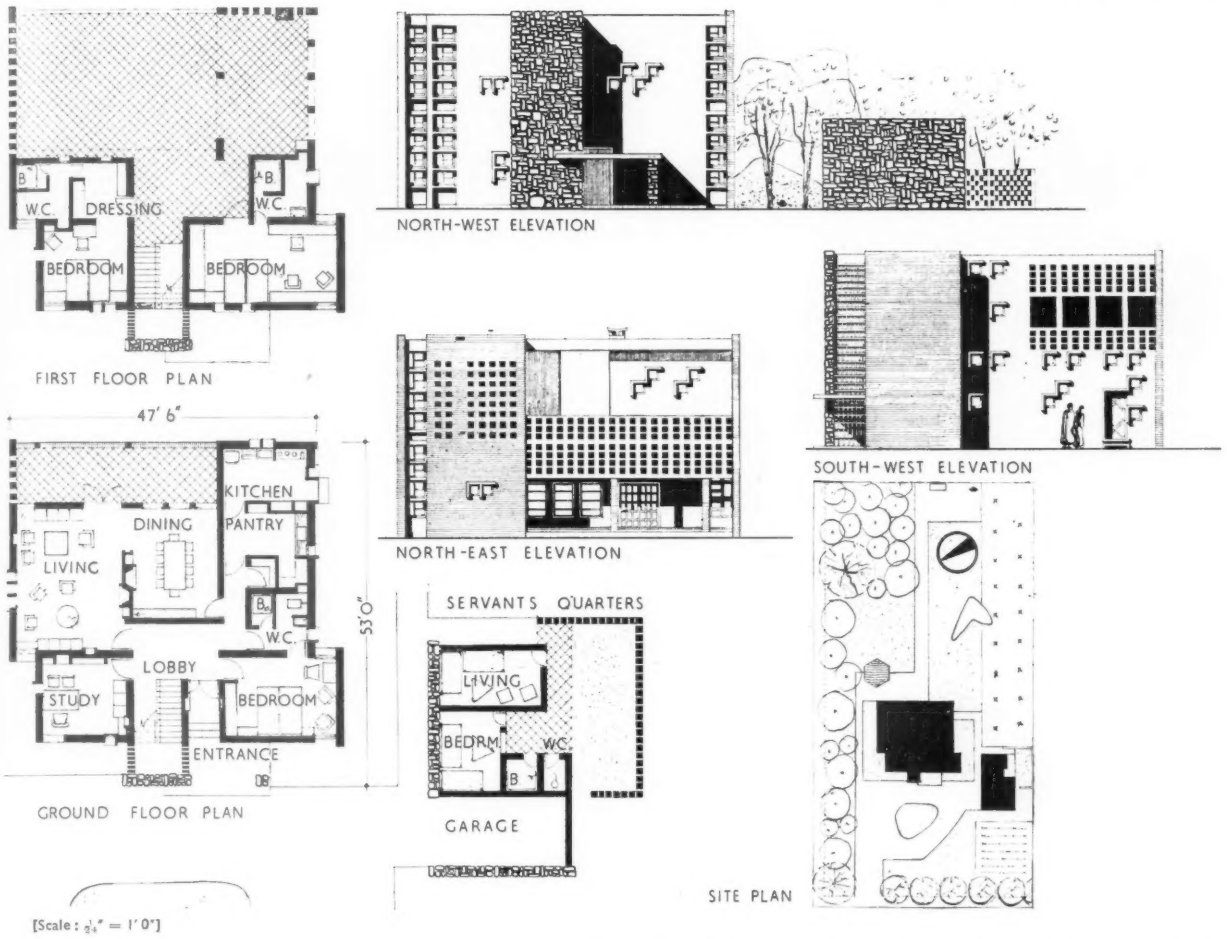
Below, a terrace of small houses (type 13J), consisting of living-room, bedroom and kitchen only, with bathroom planned in a separate block at the end of a courtyard (see plan of one pair of the houses on facing page). Also facing is a layout plan showing how three back-to-back terraces of these houses are grouped to form a self-contained village community. Narrow windows run the full height of each room. Where walls are not shaded by being set back, they are once again patterned in relief to prevent over-heating.

HOUSES

at CHANDIGARH, INDIA

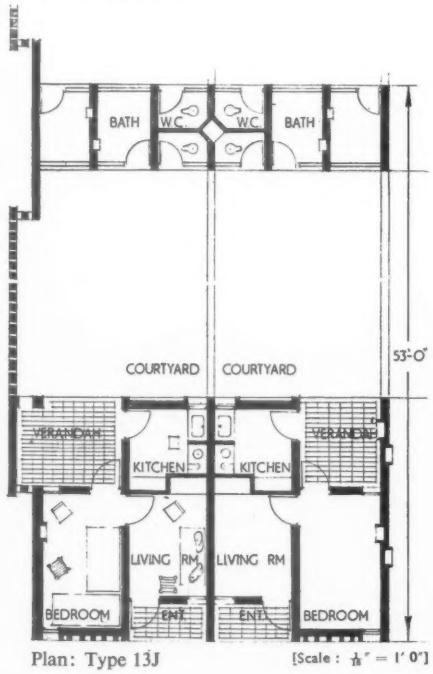
designed by PIERRE JEANNERET



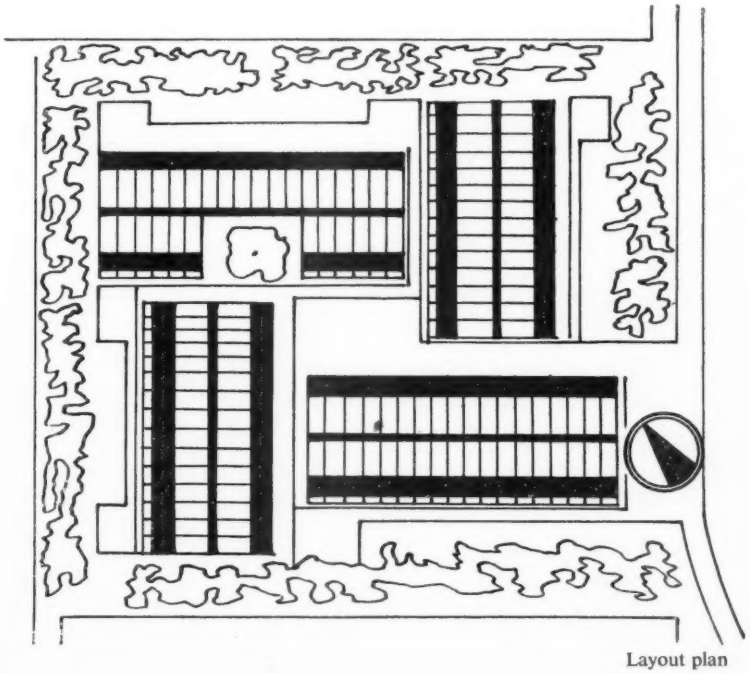


Above, a medium-size house (no photographs available), also by Pierre Jeanneret—type 5J. It is planned on two storeys, with servants' quarters and a garage forming a separate, single-storey block alongside. The rear part of the first floor is an open terrace protected by pierced concrete screens. Note the use of local stone for walling.

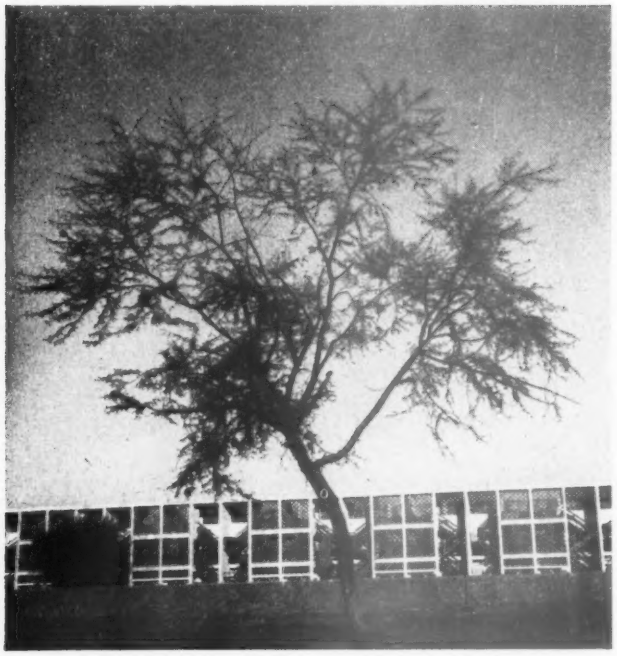
Below, ground floor and layout plans of house type 13J. (See facing page.)

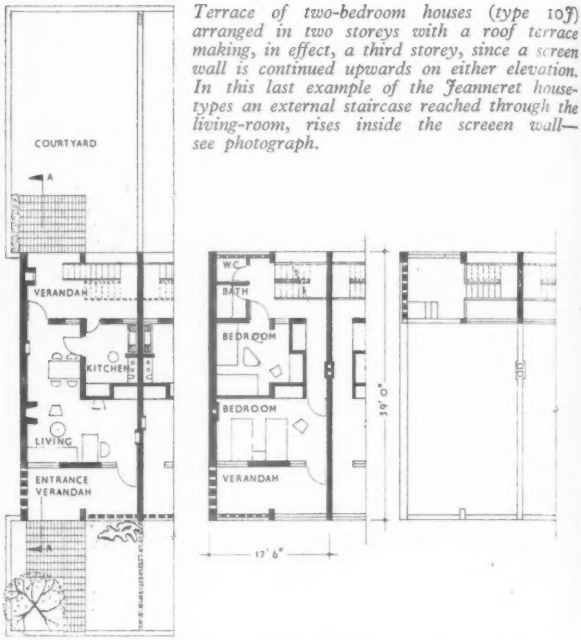


Plan: Type 13J [Scale : 1/8" = 1' 0"]



Layout plan





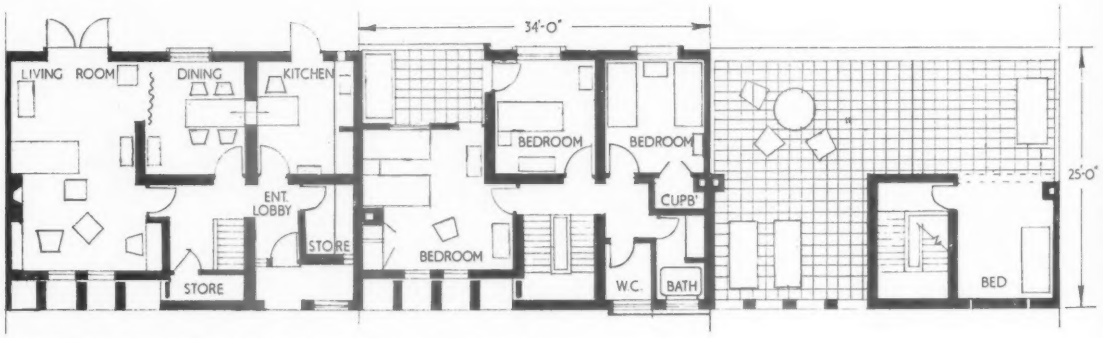
Terrace of two-bedroom houses (type 10J) arranged in two storeys with a roof terrace making, in effect, a third storey, since a screen wall is continued upwards on either elevation. In this last example of the Jeanneret house-types an external staircase reached through the living-room, rises inside the screeen wall—see photograph.

Ground, first floor and roof plans, Type 10J houses [Scale : $\frac{1}{16}$" = 1' 0"]

HOUSES

at CHANDIGARH, INDIA

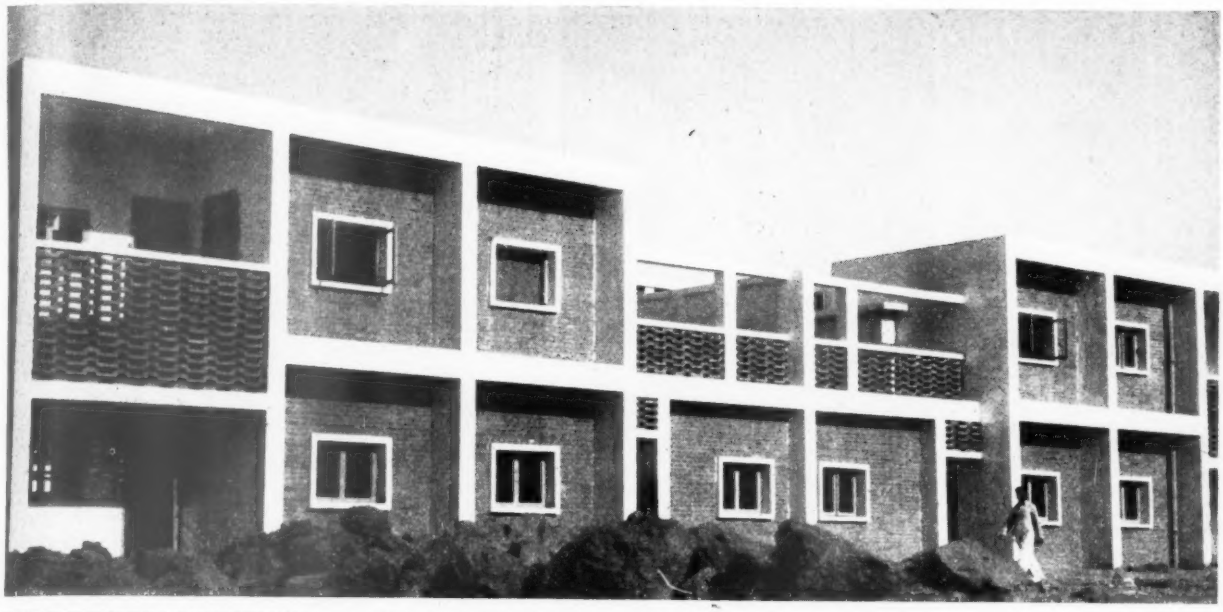
designed by E. MAXWELL FRY

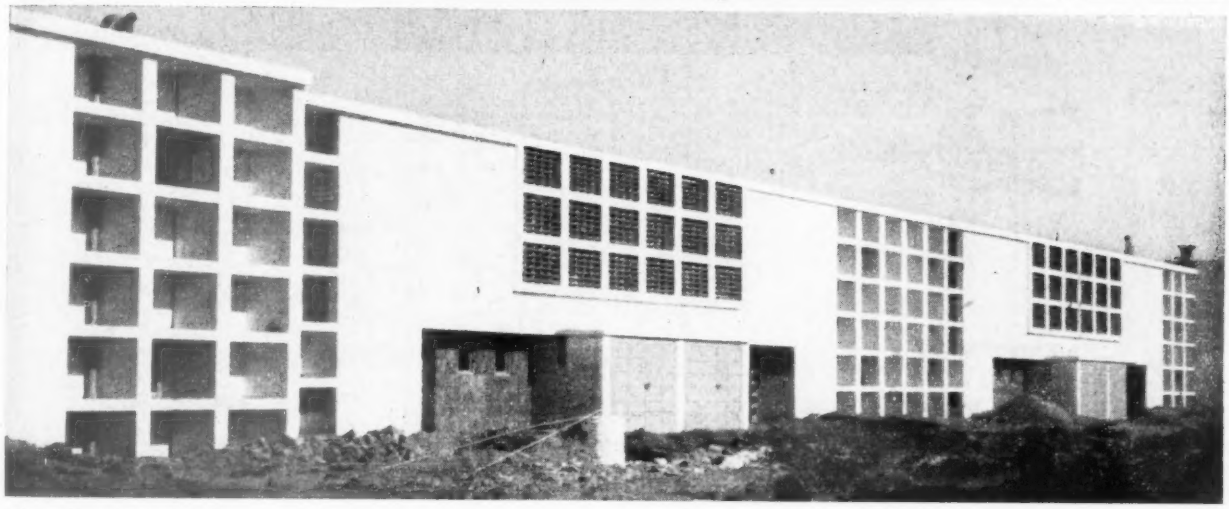


Ground, first floor and roof plans, Type 9F [Scale : $\frac{1}{16}$" = 1' 0"]

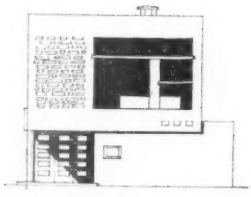


Two-storey terrace housing (type 9F) of a higher class than the type above (three bedrooms and a separate dining-room) but with a similar large sleeping terrace on the roof, producing a three-storey elevation on one side.

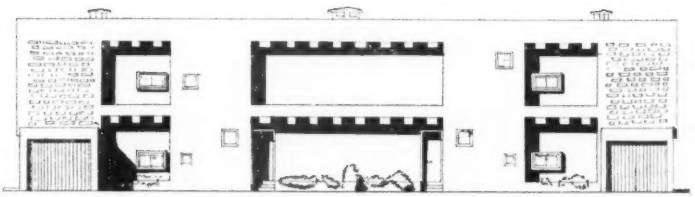




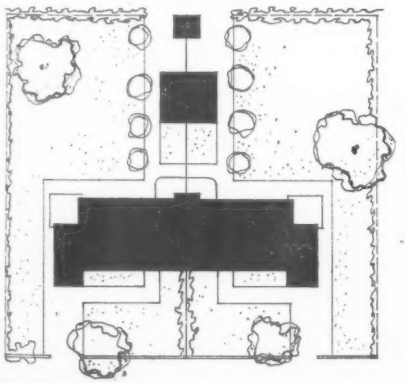
Above, front and back view of a terrace of houses (type 8F), similar in conception to the type illustrated at foot of facing page but with the screened sleeping terrace occupying part of the first floor. Right, semi-detached three-bedroom houses (type 7F) Both by E. Maxwell Fry.



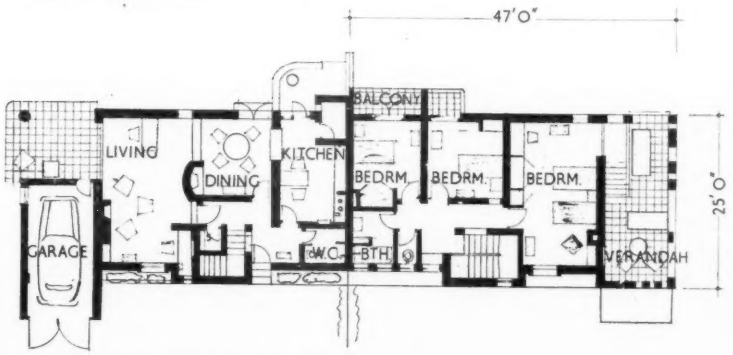
End elevation



Front elevation [Scale : $\frac{1}{16}$" = 1' 0"]



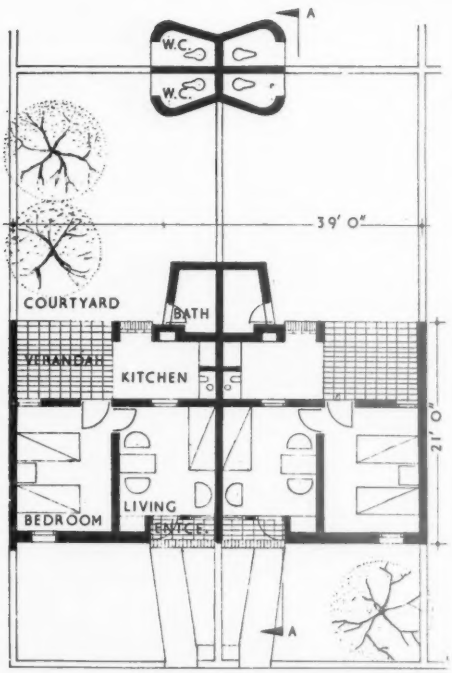
Site plan, Type 7F



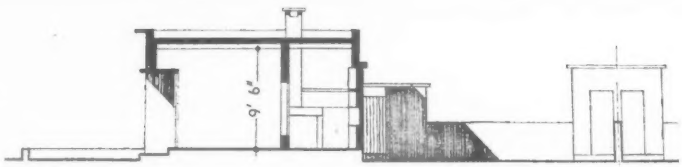
Ground and first floor plans, Type 7F

Village housing for peons (type 13D) by Jane Drew. They contain living room, bedroom, kitchen and bath, with a W.C. at the end of the courtyard. Arranged in rows back-to-back (see layou plan) they form compact village groups. The group is surrounded by a brick wall with arched entrances, right and below.

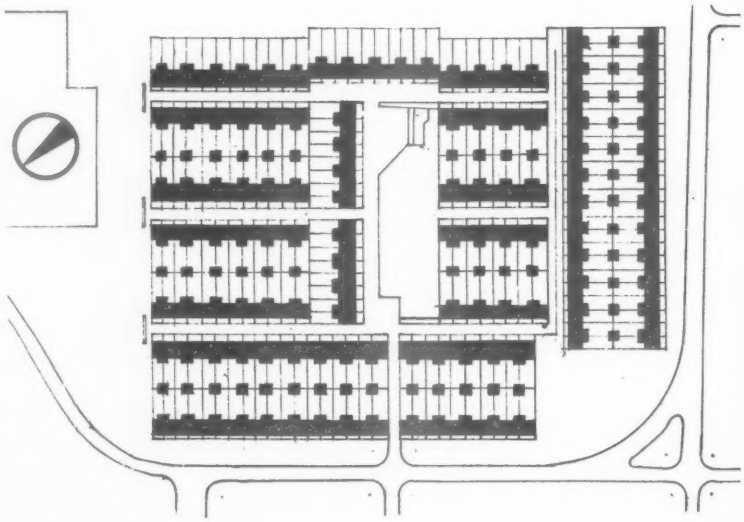




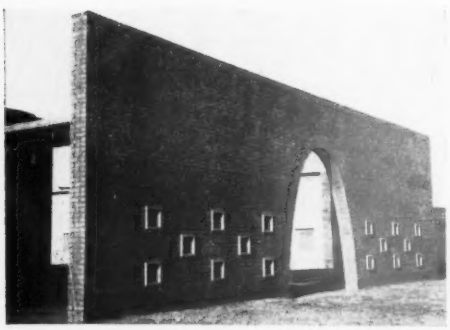
Plan, Type 13D [Scale : $\frac{1}{16}$" = 1' 0"]



Section A-AL



Layout plan

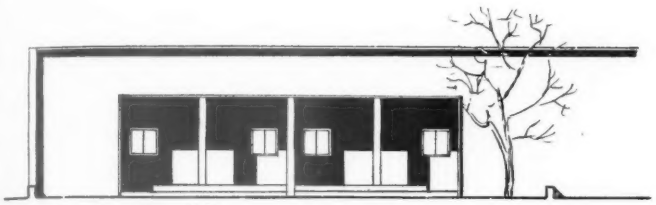




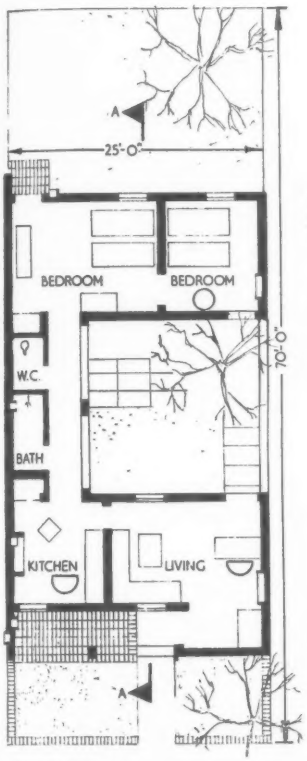
HOUSES

at CHANDIGARH, INDIA

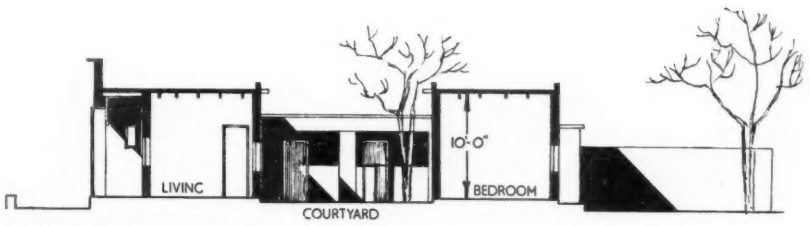
designed by JANE DREW



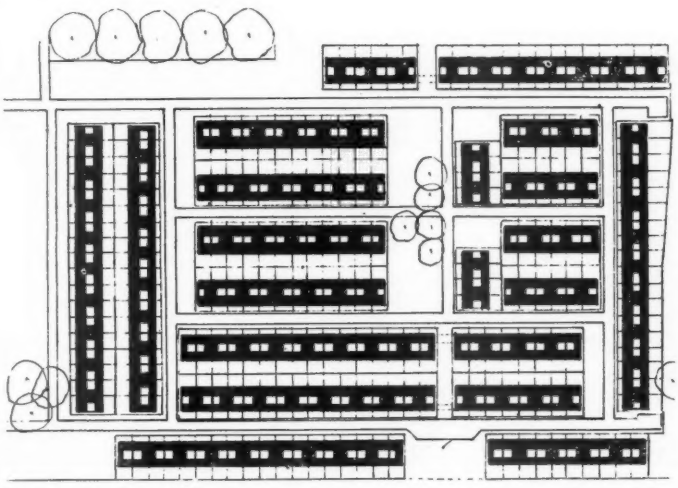
Front elevation, Type 12D



Plan, Type 12D



Section A-A [Scale : $\frac{1}{16}$" = 1' 0"]



Layout plan, Type 12D

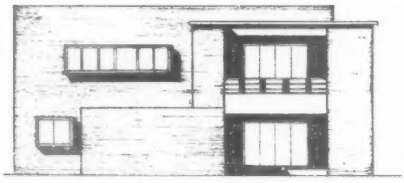
Left, a two-bedroom type of village house (12D) planned round an internal courtyard from which bathroom and W.C. are reached. Below, entrance front of larger type (4D) of detached house.



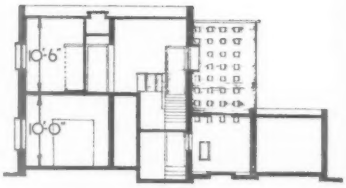
HOUSES

at CHANDIGARH, INDIA

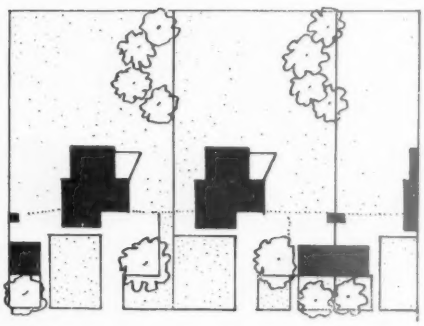
Three-bedroom house (type 6D) for senior officials, designed by Jane Drew (no photographs available). This is a detached two-storey house. Several houses occupy adjoining plots on the boundaries of which are one-storey blocks providing servants' quarters for two houses—see layout plan.



Elevation

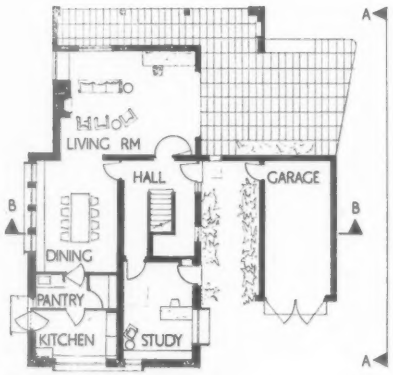


Section B-B



Type 6D

Layout plan



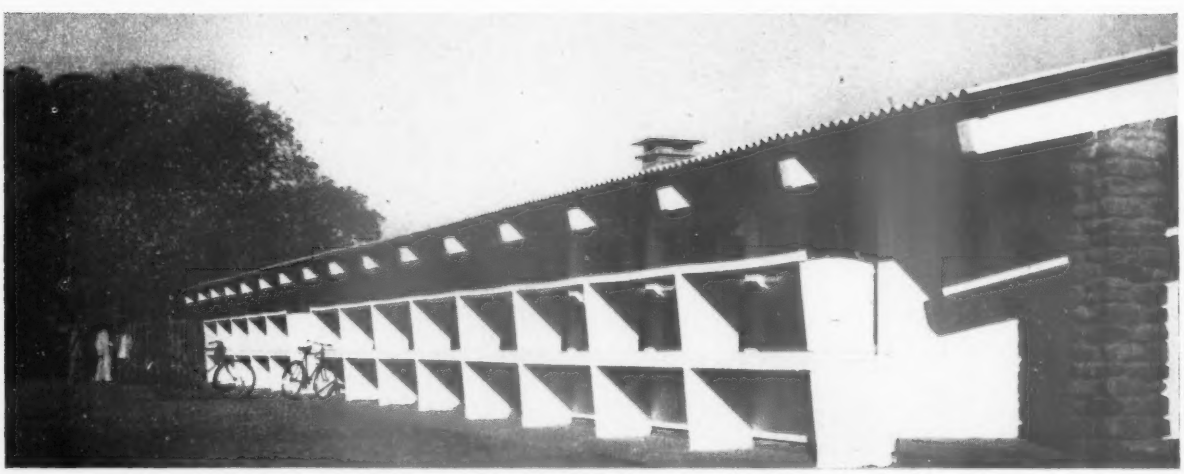
Ground floor plan

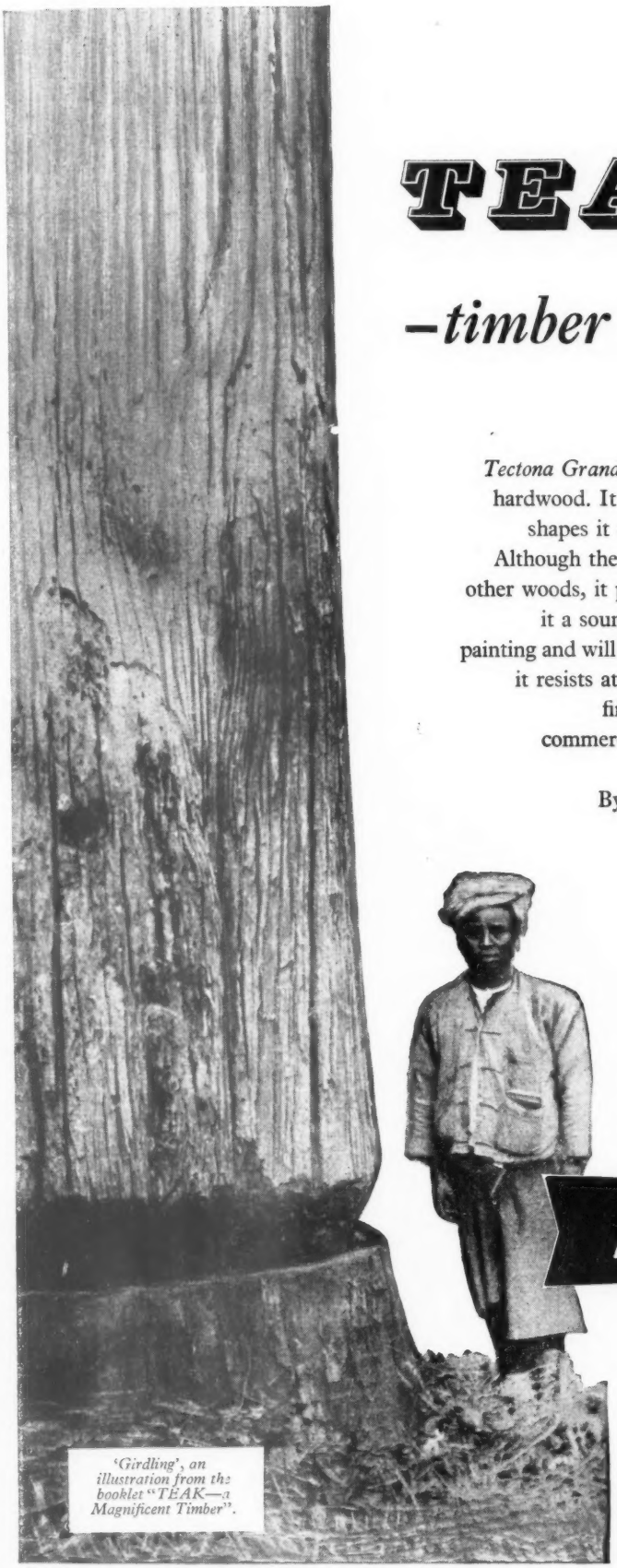


First floor plan [Scale : $\frac{1}{16}$" = 1' 0"]

Below, the architects' offices at Chandigarh in which the drawings for this and all current work were prepared. The first buildings to be completed on the site, they were designed by Pierre Jeanneret. On the left in the upper photograph is a brick arch erected as part of a structural experiment.







'Girdling', an illustration from the booklet "TEAK—a Magnificent Timber".

TEAK

—*timber of many virtues*

Tectona Grandis, the genuine Teak, remains the supreme hardwood. It is equally rewarding to the craftsman who shapes it and the person who uses the final product. Although the initial outlay on Teak may be higher than other woods, it possesses outstanding qualities which make it a sound proposition in the long run. It needs no painting and will last for centuries with very little attention; it resists attacks by insects, fungi, chemicals and even fire; its shrinkage factor is the lowest among commercial timbers. Added to all this, Teak works well and looks well.

By stocking Teak in an enormous number of sizes, Morris can offer a specialised service which cuts down wastage and results in considerable economy to the buyer.

MORE ABOUT TEAK

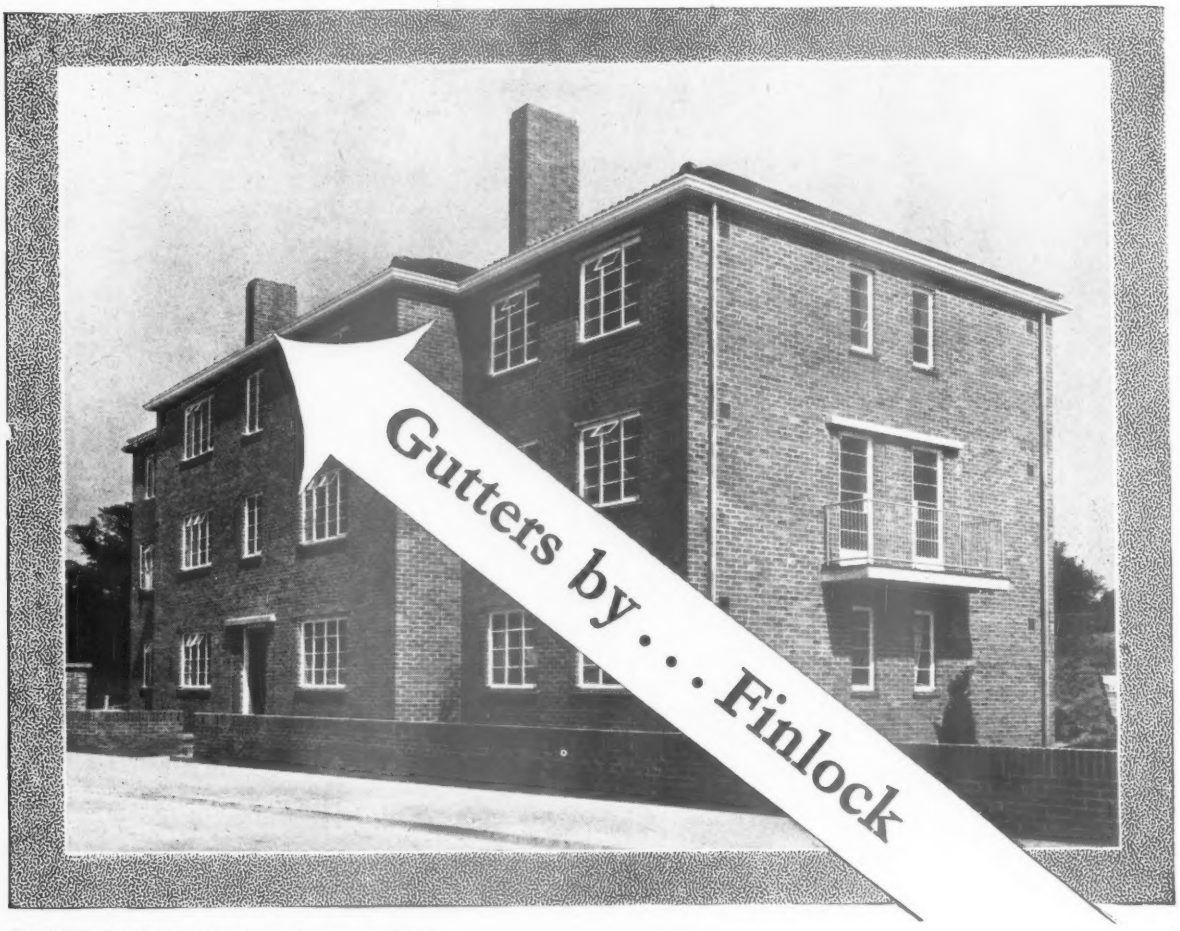
You are invited to send for an illustrated booklet which tells the story of Teak from forest to mill, and explains more fully its properties and uses.

M·A·MORRIS·LTD

Specialists in Teak, Mahogany, Iroko and Wainscot Oak. Manufacturers of high grade sliced, decorative veneers.

RAVENSDALE WHARF, STAMFORD HILL, LONDON, N.16
Tel: Stamford Hill 6611 (6 lines)

* *You'll see them on all the best modern buildings . . .*



Royal Borough of Tunbridge Wells. Flats on Ramslye Estate. 2

THE development and use of the Combined Finlock Gutter and Lintol is a significant post-war trend.

Finlock combines a very fine appearance with savings in Cost, Maintenance, Bricks and Timber.

Finlock has been specified on many prize-winning designs, and is being used by upwards of 1,000 Local and Education Authorities, County Councils, Development Corporations, War Office, Admiralty, Air Ministry, Ministry of Works, Gas and Electricity Boards, etc., etc.

SERVICE *Free assistance available on any site.*

ESTIMATING *We take off quantities and are completely responsible for seeing that correct goods arrive on site at stated time.*

DELIVERIES *Our transport covers the British Isles with a 24-hour service.*

FINLOCK PRE-CAST CONCRETE GUTTERS



FINLOCK GUTTERS LTD.

***Head Office:* FINLOCK HOUSE, 25 FRANT RD., TUNBRIDGE WELLS, KENT. Tel: Tunbridge Wells 3396/7/8/9**

7 *Works for speedy deliveries to any part of Great Britain: Crewkerne, Somerset · Leeds, Yorkshire Edinburgh, Scotland · Cwmbran, South Wales · Royston, Herts · Tunbridge Wells, Kent · Belfast, Northern Ireland*

DHB/5

TECHNICAL SECTION

In a recent paper to the RIBA on Economy in Building* the author refers to the valuable work done by the MOE development group. Reference is made to the importance of " Cost Study " as set out in the MOE Building Bulletin No. 4 which described methods of examining the cost of schools built and, by cost analysis, the control of the cost of new schools. The Bulletin raised considerable interest at the time of its publication as it was obviously full of good sense, but surprisingly little has been heard of it since the first flood of favourable reviews. Has it, in fact, been put to real use ? If so, could not some of the results be made generally available? Many private architects who are concerned with school building may be well disposed towards the intentions of the Bulletin but quite unable, within the economic limits of their fees, to devote the time to making detailed cost analyses themselves. If others, with better opportunities, could make some of the results available all could benefit and still lower school costs would result. If any school building authorities, or private architects or quantity surveyors, have any such useful information which they are prepared to publish, the JOURNAL'S pages are at their disposal.

* Economy in Building. H. F. Broughton. (also BRS Note No. E. 483)

This week's special article

9 DESIGN: GENERAL
accommodation of services below ground

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

Derek Hammett contributes below, an article on the accommodation of services below ground. He deals with the various general conditions which affect the different services. Next week he concludes the article with a detailed consideration of the problems of ducts.

The British Standard Code of Practice C.P. 413 (1951) on the Design and Construction of Ducts for Services, provides excellent general recommendations on the procedure, design, and construction for service ducts. The object of this article is to point out in greater detail the major considerations, and to suggest various methods of dealing with services under buildings and below ground.

In the early stages of designing a building, it is important to ascertain, in conjunction with the owner, the consulting engineer and the specialists concerned, the various services required, their destination, and whether extensions, additions or future altera-

This . . . to this



in 2½ days

For quick transformation in office or factory, choose "Compactitioning" —the new partitioning service that gives you these four freedoms:

FREEDOM TO CHOOSE—With "Compactitioning" you are not tied to any particular material. There's a choice of materials (and finishes) to suit the needs of your job. Materials used in "Compactitioning" include "Compactite", "Holoplast", "Plimberite", "Stramit", corkboard and plasterboard.

FREEDOM TO CHANGE—"Compactitioning" gives you solidity with mobility. It is easy to dismantle and re-erect to meet changed requirements.

FREEDOM FROM LICENSING—"Compactitioning" units are free of all licences and available by the foot or by the mile.

FREEDOM FROM TROUBLE—Your problem, big or small, can be solved in our drawing office. This tailor-made service costs no more because partitioning is built up from standardised components. This reduces site work and cuts down disturbance in occupied premises.

WHEN YOU DECIDE TO DIVIDE—USE

PARTITIONING BY COMPACTOM

COMPACTOM LTD., OXGATE LANE, CRICKLEWOOD, LONDON, N.W.2. PHONE: GLADSTONE 2600

tions to the building are likely or necessary. The appropriate authorities, factory inspectorate, and supply companies must also be consulted regarding their regulations and requirements, which should include the question of fire prevention.

The architect should be aware of the various general conditions affecting the different services which must be considered in their design.

SERVICE REQUIREMENTS :—

I. WATER:

(*a*) *Main service supply :*—A stop cock is usually required at the boundary of a site, and also immediately inside the building. Accessible control valves should be provided so that any branch can be isolated. Meters may be required. Pipes must be protected from frost. Pipes may be buried in the ground but should be at least 2 ft. 6 in. below surface unless specially protected from frost. The water supply company must be consulted.

(*b*) *Cold distribution service:*—As for main supply.

(*c*) *Hot water service :*—Accessible control valves should be provided so that any branch can be isolated.

Provision for expansion must be provided at every 100 feet, at least, as pipes will expand and contract about $\frac{3}{4}$ in. to 1 in. in a 100-ft. run.

Most water supply companies have regulations regarding the length of "deadleg" branches and may require both flow and return pipes to be installed, in any case "deadleg" branches over 20 ft. long should be avoided. Pipes should fall a minimum of 1 in. in 50 feet. Steel pipes can be obtained in lengths up to 24 ft. Lagging is generally required and the following table gives a guide to the final pipe size to be accommodated:

Pipes up to $1\frac{1}{4}$-in. bore	Lagging 1 in. thick.
,, $1\frac{1}{2}$ to $2\frac{1}{2}$-in. bore	Lagging $1\frac{1}{4}$ in. thick.
,, over $2\frac{1}{2}$-in. bore	Lagging $1\frac{1}{2}$ in. to 2 in. thick.

The external diameter of steel pipes is approximately as follows :—

1-in. bore.. $1\frac{3}{8}$ in. external diameter.
$1\frac{1}{2}$-in. bore..Nearly 2 in. external diameter.
3-in. bore ..$3\frac{1}{2}$ in. external diameter.

(*d*) *Heating by high or low temperature water :*—The general requirements are the same as for hot water.

With low temperature, floor-panel heating systems the panel pipes have to be connected to headers, below the pipe level to the flow and above to the return. These headers have a control valve and vents to balance the system and must be reasonably accessible.

II. STEAM

General requirements are similar to those for a hot-water service. The fall in the pipe should be increased to about 1 in. in 20 ft. To reduce the total fall in a long length the steam pipe can be stepped at intervals, providing that a steam trap and condense pipe is fitted at each step. If possible, the condense should be returned to the boiler for re-use, if not, it must discharge to a drain.

III. FIRE HYDRANTS AND SPRINKLERS

Requirements are similar to those for a main water supply. Should not be in close proximity to electrical services. (The various authorities must be consulted on the term "close proximity" as used in this article.)

IV. GAS

Gas should not, if possible, be in close proximity to electrical, oil or petrol services. The pipes may be buried in the ground, or in concrete screed, but must be protected against corrosion. They should also be carefully protected against damage. The meter is usually required to be as near as possible to the point of entry into the building. Service pipes should be laid with a fall from the meter to the main.

V. ELECTRICITY

Electrical requirements tend to change more frequently than most other services, therefore provision should be made for mains and submains to be replaced fairly easily and without unnecessary disturbance to the building. Electrical services must be kept dry, and contact with other metal service pipes, especially gas, water and petrol, should be avoided by spacing or insulation.

Special precautions must be taken where electrical services are subjected to temperatures above 100 deg. F.

VI. COMPRESSED AIR AND VACUUM

There are no special requirements regarding these services.

VII. TELECOMMUNICATIONS

Requirements are similar to electricity. The whole system should be readily accessible and very adaptable to meet the inevitable changes in instrument positions, number of lines, etc., required in most buildings.

VIII. CENTRAL VACUUM CLEANING SYSTEM

The pipe runs should be as straight as possible to keep the number of bends to a minimum. No access to pipes is required. The main pipe is rarely greater than 6 in. diameter, and averages 3 in. to 4 in. diameter.

IX. PNEUMATIC CASH CARRY TUBES

The tubes are $2\frac{1}{4}$ in. diameter and bends should not have a radius of less than 2 ft. 6 in., if possible, although a smaller radius down to 6 in. minimum, can be used if special inspection covers are provided.

This is a highly specialized service and the manufacturers should be consulted at a very early stage as to the layout and their requirements.

X. ARTIFICIAL VENTILATION, PLENUM, DUST EXTRACTION

Must be designed to avoid circulating fumes from gas, petrol, etc. A specialist should be consulted at a very early stage.

CONCEALED SERVICES

Services have frequently to be run under the ground or buildings because they cannot be exposed for reasons of appearance, cleanliness or protection from damage. There are two principal methods of doing this :

(1) By burying the services in the ground or under or in the floor slab. This method cannot be used for all services.

(2) By forming a duct of suitable material to accommodate the services.

The first method is used extensively for main supply services, such as gas, water, electricity and telephone, in the ground outside buildings, and even under buildings of a simple nature.

Taking into account the considerable saving in initial cost, this method is perfectly satisfactory where there is little or no likelihood of any change in the requirements. It is certainly suitable outside buildings, because, providing these services are properly designed, executed, tested and protected, they should not develop any faults so as to require repairs or renewal for very many years.

However, where services have to run under buildings, very careful thought should be given to the problem, because, although faults should not occur, things do go wrong and then the cost and inconvenience of exposing a buried pipe inside a building can be considerable. Generally, it is best to take the shortest possible run under the building even if this involves a longer run outside.

Be very careful to ascertain if any alterations or extensions are likely in the future, and any decisions should be recorded, as memories are inconveniently short when later the client wants to know why something was not allowed for.

With buried services there are certain general rules that should be observed :

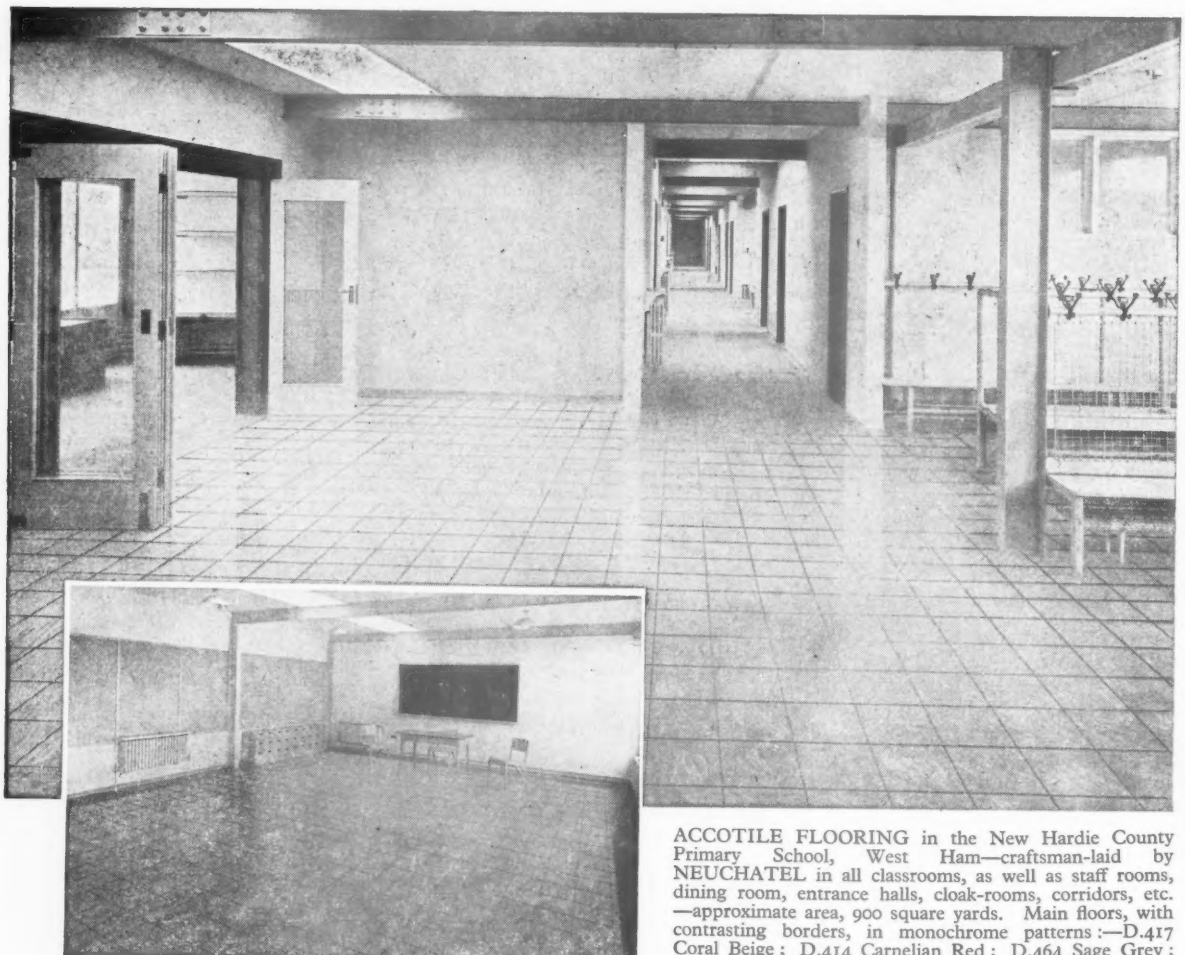
(*a*) Protection from corrosion: ferrous materials should always be wrapped or coated with a waterproof covering. Non-ferrous materials may need protection in certain soils, such as ashes, clinker, red marl clay and wet ironstone. Serious corrosion is usually due to poor drainage, high chloride and/or sulphate content with a high moisture retaining capacity.

(*b*) Protection from frost: waterpipes should be at least 2 ft. 6 in. below ground or suitably insulated.

(*c*) Protection from damp: electric and telecommunication cables must be waterproof.

(*d*) Protection from damage either by, or to, persons. It is advisable to protect

THE LOW-COST FLOOR WITH THE LUXURY LOOK



ACCOTILE FLOORING in the New Hardie County Primary School, West Ham—craftsman-laid by NEUCHATEL in all classrooms, as well as staff rooms, dining room, entrance halls, cloak-rooms, corridors, etc. —approximate area, 900 square yards. Main floors, with contrasting borders, in monochrome patterns :—D.417 Coral Beige ; D.414 Carnelian Red ; D.464 Sage Grey ; D.416 Harvest Gold. *Architect and Planning Officer to the County Borough of West Ham : Thomas E. North, Esq., O.B.E., F.R.I.B.A., Dis.T.P. Contractors : West Ham Corporation, Works Department.*

ACCOTILE FLOORING

CRAFTSMAN-LAID BY **NEUCHATEL**

This service is available in any part of the United Kingdom through Neuchatel's network of branches, for any type and size of building. Technical consultation freely invited.

THE NEUCHATEL ASPHALTE COMPANY LTD., 58 *Victoria Street, London S.W.1.*
Contracting Departments: Telephone: RENown 1321

APPROVED LAYING SPECIALISTS FOR ACCOTILE THERMOPLASTIC FLOORING TILES

Also Specialists for 80 years in ASPHALTE *for Tanking, Flooring, Roofing and Roads*

all buried services from damage by marking, covering with slabs, or by running in stoneware or asbestos pipes. High-tension electricity cables must be covered with a slab, usually of terra-cotta or precast concrete, clearly marked "high-tension electricity." Electricity cables are normally run inside stoneware or asbestos pipes which act as both a warning to anyone digging and also as a conduit to enable the cable to be easily replaced. Cable is not very flexible and requirements as to radius of any bends should be discussed at an early stage.

(*e*) Access to control valves must be provided.

(*f*) Services under roads, or areas where vibrations are likely, should be run in a simple culvert or pipe casing to reduce the risk of fracture.

There are two major problems not adequately solved when services are simply buried :

(1) Repairs, alterations, extensions and additions.

(2) Site organization where numerous services are involved.

Both these, however, can be solved by the use of properly designed ducts.

INFORMATION CENTRE

A digest of current information prepared by independent specialists ; printed so that readers may cut out items for filing and paste them up in classified order.

8.37 surveying: specification

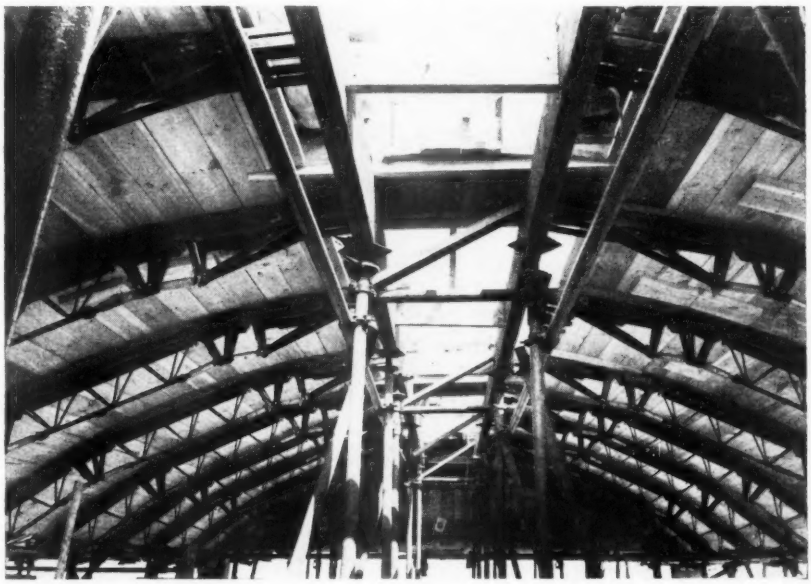
SPECIFICATIONS

Specification Writing for Architects and Surveyors. Arthur J. Willis. (Crosby Lockwood & Son Ltd. 1953. 7s. 6d.)

After 15 introductory pages on what a specification is and the form it should take, the bulk of this book is in the form, not of standard clauses, but of check lists, under the usual trade headings, of the points likely to require description. Relevant BS and Codes are also listed. Appendices deal with invitations to nominated sub-contractors and suppliers and several other matters.

This will be a very useful book for the young architect, though to some extent it involves the same danger as that of copying from an old specification—that items special to a particular job can be missed just *because* one is working from a check list. With care in guarding against this danger, the book should prove most helpful and a considerable "time saver."

BARREL VAULT ROOFING WITH PATENT SHUTTERING



The use of various types of rapidly-erected patent formwork for concrete barrel-vault roofing is greatly increasing the scope of this form of construction. One of the advantages is the small number of supports used, compared with the forest of scaffold poles otherwise required. The system seen in use in the photo above comprises patent metal beams which follow the curve of the vault in a series of chords. Timber turning pieces, screwed to the beams, make up the true curve, and ordinary timber decking, faced with hardboard to ensure a smooth finish to the underside of the concrete, spans between the patent beams, which are at 3-ft. centres. With this system, no intermediate supports are required except, as in the photo above, where roof glazing is to be inserted. The photo shows the underside of one bay of the incinerator house of the new refuse disposal works of the Borough of Twickenham. The roof of the incinerator house comprises seven vaults each with a span of 33 ft., a width of 20 ft. 6 in. and a shell thickness of 2½ in. The salvage house and the tipping house of the works will also be covered with barrel vault roofing—the former by eight vaults, each spanning 40 ft., with a width of 19 ft. 3 in. ; the latter with a single vault with a span of 90 ft. and a width of 30 ft. The new works will deal with refuse from Twickenham and the urban districts of Sunbury and Staines, serving a population of 170,000, and will be capable of handling 175 tons of refuse per 8-hr. shift. The estimated cost of the scheme is approximately £250,000. (Designed by the Borough Engineer's Department of the Borough of Twickenham ; borough engineer and surveyor, A. S. Knolles ; contractors, page 174.)

13.113 materials : timber

HARDWOODS IN BUILDING

The Use of Hardwoods in Building. BRS Digest No. 59. (HMSO. Oct., 1953. 3d.)

General notes on hardwoods with special reference to use of those only fairly recently available. Useful table giving names, place of origin, weight, resistance to decay and brief notes on characteristics and uses. Table divided into 3 sections for light, medium and heavy woods.

14.66 materials: concrete

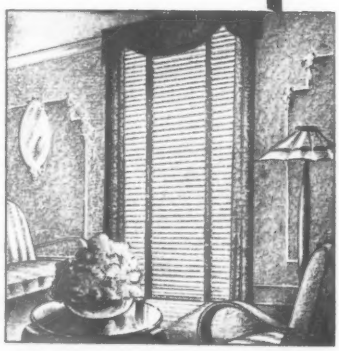
CONCRETE HANDLING

Handling Concrete on Housing Sites. MOW Advisory Leaflet No. 32. (HMSO. 1953. 3d.)

Good organization on the site is still rare enough to cause comment when it is met. Mechanization is increasing all too slowly. A pair of semi-detached houses may have about 30 cu. yd. of concrete in the foundations and ground floors; in this leaflet are described ways of getting this concrete from

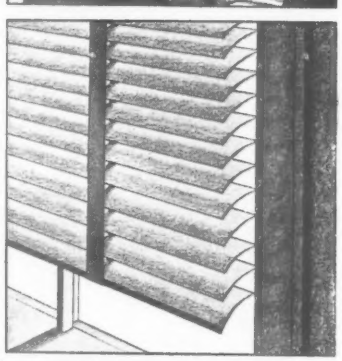
When fitting venetian blinds . . .

SUNWAY venetian blinds give ideal light conditioning. Yet the slats can be arranged to ensure complete privacy. They are tailor-made to fit any window. Additional features include:—



control of sunlight

At the flick of a finger SUNWAY can soften the glare of the sun, protecting furniture and carpets from harmful fading effects.



increase of artificial light

On dark evenings the aluminium slats, scientifically curved and stove-enamelled, reflect and increase artificial light. Special enamel finish will not crack, chip or fade.

draught-free ventilation

SUNWAY can be adjusted to give draught-free ventilation, whatever the season, whatever the weather. Adjustment is simple and trouble-free.



In winter, fuel is saved by closing the slats to eliminate draughts and conserve room heat.
You can safely specify SUNWAY for windows in home, shop, factory, office, school or hospital. Available in 14 different colours and also in the new two-tone slats.
We also manufacture SUNWAY "Two-way" blinds which can be raised from the sill as well as lowered from the top and the SUNWAY SKYLIGHT Blind (Pat. No. 699431) for horizontal or sloping roof lights.

specify

SUNWAY REGD

The versatile venetian blind

Please write for full particulars to:—
VENETIAN VOGUE LTD., 408, MONTROSE AVENUE, SLOUGH, BUCKS.
Telephone: Slough 24595

SUNWAY VENETIAN BLINDS

A COMPANY OF THE BELLS ASBESTOS AND ENGINEERING GROUP

the mixer to the point of placing, quickly and economically.

18.140 construction: theory
STEELWORK FABRICATION

Constructional Steelwork Shop Practice. John Farrell (Iliffe & Sons Ltd. 1953. 15s.)

Book on steelwork fabrication and shop practice written primarily for apprentices and students but of interest to all who design in or use steelwork.

There has been a tendency in the post-war years for students to become specialists in some sphere of engineering before they have really seen the whole field. In particular, there has been a lack of training on the actual site of fabrication and construction and it is quite common to find men detailing steelwork without any real knowledge of the way the parts are shaped and connections made as fabricating work proceeds. Mr. Farrell's book fills the gap to some extent in that it includes a very full description of methods and processes and information on tools, materials and the reading of drawings.

There are 214 pages and 220 diagrams and illustrations. The book is divided into 3 main sections, materials and the reading of drawings, the work in the template shop and the work in the fabricating shop and is particularly easy to read.

Mr. Farrell's description of the book as suitable for apprentices and young men engaged in fabricating steelwork is too modest; it will be of interest to everyone who comes into contact with structural steelwork.

18.141 construction: theory
STEELWORK DESIGN

Practical Design of Simple Steel Structures —Vol. 2. D. S. Stewart. (Constable. 1953. 25s.)

Third edition of a well-established text book of steelwork design of interest to architects and engineers.

Dr. Stewart's text book needs no introduction to the majority of readers who are interested in steelwork. This third edition has been revised to bring the text book into line with the latest British Standards while maintaining the previous general layout and examples. The book and the price should appeal to the University student who prefers to see worked examples to illustrate the method of design. These include a 40-ft. span gantry girder, a 55-ft. span roof truss, a lattice girder foot bridge, a 70-ft. span railway bridge and a 70-ft. span road bridge. There are 297 pages, 245 figs. and 11 large plates giving details of the various designed members. The book refers only to bolted and riveted work, another 100 pages would have been required to do justice to alternative designs in welded steelwork and the author only having a few pages at his disposal avoided any reference to welding.

18.142 construction: theory
PRESTRESSED CONCRETE DESIGN

Estimation of Friction in Prestressed Concrete Friction in Post-tensioned Prestressing Systems. E. H. Cooley. (Cement & Concrete Assoc. 1953.)

Two C & CA publications based on the same material, one in more general terms for light reading by architects, the other a research report for engineers.

"Estimation of Friction in Prestressed Concrete" provides a comprehensive survey of the problem of friction in post tensioned work. It explains in a manner which is easily readable the setting up of friction in different ways and at different parts of the cable, the way in which this may be observed and measured, the practical implications of this and possible ways of reducing the friction or taking care of its effect in the design of the member. The 3 main systems employed in this country, Freyssinet, Magnel and Lee-McCall, are treated separately and coefficients are established for each type cable stressed in ducts which have been formed by various methods. Friction loss in the particular case may be assessed by inserting the coefficient in a standard formula.

"Friction in Post-tensioned Prestressing Systems" is the full research report from which the previous pamphlet is extracted and gives the full theoretical treatment and an account of the experimental work carried out.

18.143 construction: theory
STRUCTURAL DESIGN

Building Science. Vol. 3. *Structures.* A. G. Geeson. (English Universities Press Ltd. 1953. 27s. 6d.)

Third volume of a series of books on Building Science for students of architecture and building.

This volume continues the work on structures covered in the second section of Building Science Vol. I. Its 412 pages are particularly easy to read and profusely illustrated. The first 3 chapters are given to a description of the materials of construction, concrete, steel and timber. The next four chapters cover the theory of bending of beams and the application to the various materials is considered. Reinforced and prestressed concrete are dealt with at this point, a little more, and modern advice on detailing of reinforcement would have improved this chapter. Struts, foundations, masonry structures and frames structures are covered in separate chapters but a pleasant feature of the book is the manner in which a particular problem is solved in the different materials of construction.

23.191 heating: ventilation
DISTRICT HEATING

District Heating. Parts I to V. Post War Building Study No. 31. (HMSO. 1953. 7s. 6d.)

District Heating. Part VI. Post War Building Study No. 32. (HMSO. 1953. 10s.)

These two volumes have been prepared by the Committee of the Building Research Board appointed in 1942 to report on the desirability of developing district heating schemes in this country. There has been considerable delay in publication, for it appears that the report was completed in 1948. Since then a number of district heating schemes on housing estates have been put into operation, and much useful operating data must have been gained; it is regrettable that it has not been possible to incorporate these results in the present report. The gap is filled to some extent by a note summarising the latest developments which has been added by the Chairman.

The report is in 6 parts. Part I presents the general report on the possibilities of district heating, and there is much of interest here for those responsible for town planning. The main conclusion is that district heating can provide an efficient and economical heating and hot water service, and that there are also other advantages, such as the possible reduction in atmospheric pollution. Two systems of district heating are envisaged; a thermal scheme in which a central solid fuel boiler provides hot water for distribution; and a thermal-electric one where a central station generates electricity and utilises the normal waste heat to provide the heat service. The Committee were particularly impressed with the potentialities for fuel saving with a thermal-electric station. The report recommends that representative schemes using thermal and thermal-electric systems should be tried in this country.

The remaining parts of the report are more detailed and technical. A survey of district heating schemes abroad is followed by a memorandum on a suggested scheme for a site in Birmingham. Then comes a memorandum on the application of district heating in small housing estates, and the first volume concludes with a discussion of the heat pump in relation to district heating schemes. Part VI, which is given in the second volume, is a comprehensive study of a thermal-electric district heating scheme which is designed to serve a large town. This detailed information will be invaluable in the design of future district heating schemes.

The note added by the Chairman just prior to publication points out that although some small thermal schemes have been started in recent years, these have not been on the scale envisaged by the Committee, and that so far no large thermal-electric scheme has been developed. The note also mentions one difficulty, anticipated by the Committee, which is largely responsible for high running costs; this is the absence of any metering of the heat supplied to individual consumers so that there is little incentive to economise. A cheap and reliable meter will be required if the possible gains with district heating are to be fully realised.

23.192 heating and ventilation
AUTOMATIC CONTROLS

Automatic Control of Heating and Air Conditioning. John E. Haines. (McGraw-Hill. $6·75 1953.)

Most of the standard textbooks on heating and ventilation give little information on this subject, hence this thorough treatment by a member of a leading American firm in this field is very welcome.

The author deals with the basic principles of controls and discusses the systems which may be used for domestic, commercial and industrial heating and air conditioning installations. The science of automatic controls has greatly developed during the last decade and has made possible an improved standard of performance with maximum economy of fuel consumption and the additional attraction of a reduction in labour costs. There is scope for fuller application of control systems in this country, and the present volume is recommended to the heating specialist who wishes to bring himself up to date.

24.167 lighting
INDUSTRIAL LIGHTING

Progress of Industrial Lighting. Production Benefits from Illumination Trends. G. A. T. Burdett. (Building Digest. December, 1953.)

Seven page illustrated article. Fairly general, but covers main features of good artificial lighting in industry and illustrates a number of examples. The recommended levels of illumination are considerably higher than those found in many actual buildings and are an indication of the progress that has been made in recent years. At the same time this increase in intensity makes good quality and good enonomy of installation of increasing importance.

A useful general article.

Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers' names please.)

.....

.....

.....

Please ask manufacturers to send further particulars to :—

NAME.....

PROFESSION or TRADE

.....

ADDRESS.....

.....

4.2.54

Buildings Illustrated

Bank conversion at 640 Finchley Road, Golders Green, London, N.W.11, for Martin's Bank Ltd. (Pages 154-155.) Architects: Bridgwater and Shepheard, F/A.R.I.B.A., A.M.T.P.I., A.I.L.A. Assistant Architects: Gordon Michell, A.R.I.B.A., and G. West. Quantity Surveyors: Dearle and Henderson. General Contractor: Mullen and Lumsden Ltd. General Foreman: E. Singleton. Subcontractors: dampcourses, asphalt, The General Asphalte Co. Ltd.; stone, marble work, decorative flooring, J. Whitehead & Sons Ltd.; structural steel, British Reinforced Concrete Co. Ltd.; central heating, boilers, Richard Crittall & Co. Ltd.; gasfitting, North Thames Gas Board; electric wiring and electric light fixtures, Drake & Gorham Ltd.; plumbing, W. H. Gascoigne & Co. Ltd.; sanitary fittings, J. Bolding & Sons Ltd.; door furniture, Comyn Ching & Co. Ltd., and N. F. Ramsay & Co. Ltd.; fibrous plaster, G. Jackson & Sons Ltd.; balustrades, fire escape stairs, Frederick Braby & Co. Ltd.; bank fittings (joinery), Shapland & Petter Ltd; wallpapers, Co'e & Son (Wallpapers) Ltd.; furniture, chairs, L. M. Furniture Ltd., and Heal & Sons Ltd.; clocks, Gent & Co. Ltd.; windows and patent glazing, Henry Hope & Sons Ltd.; patent flooring, Korkoid Decorative Flooring and J. Whitehead & Sons Ltd.

Barrel Vault Roofings with Patent Formwork (page 171). Refuse Disposal Works for the Borough of Twickenham designed by the Borough Engineer's Department (Borough Engineer and Surveyor, A. S. Knolles, B.SC., M.INST.C.E., M.INST.MUN.E.). Main contractor, William Moss & Sons Ltd. Barrel vault roofs and reinforced concrete work, Barrel Vault Roofs (Designs) Ltd. Patent shuttering, Blaw Knox Ltd

Announcements

From January 1, Andrew Derbyshire, A.R.I.B.A., will be at the office of the County Architect, West Riding County Council, Bishopgarth, Westfield Road, Wakefield, Yorks.

Richard Allport Williams, M.B.E., B.ARCH. (L'POOL), A.R.I.B.A., has been appointed Deputy County Architect to the Lancashire County Council. Mr. Williams has been Deputy County Architect to the Cumberland County Council since 1948.

H. Roland Fraenkel, 62A, Kent Terrace, Wellington, New Zealand, would like to receive particulars of all makes of prefabricated houses.

Northern Aluminium Co. Ltd. announce that the telephone number of their Leeds Area Office is now: Leeds 33621.

John W. Orr has been appointed technical representative to the London Office of The Midland Expanded Metal Co. Ltd., at Craven House, 121, Kingsway, W.C.2.

J. E. Sunderland has been appointed director and general manager of Enfield Cables Ltd. Mr. Sunderland joined the company in 1946 and has been a member of the board since 1951.

The Croft Granite, Brick & Concrete Co. Ltd., have appointed J. H. S. Nordberg, of 363, Chester Road, Castle Bromwich (Tel.: Castle Bromwich 2835) as their technical representative for the west Midlands.

Horsley, Smith & Co. (Hayes) Ltd., announce the opening of a branch office at Coldstream Terrace, Cardiff (Tel.: Cardiff 29007), on January 25.

Planning for prestige

Heal's are always happy to advise in the furnishing of offices, boardrooms and other places of importance, where quality and good design are both necessary and deserved. They can undertake commissions for individual pieces of furniture, or can execute entire furnishing schemes. In either case, Heal's will be glad to place the service of their specialised designers at your disposal, and will interpret your ideas with complete understanding.



The Managing Director's Office, Messrs. Thomas De La Rue & Co. Ltd., London, W.1. Architects: Messrs. J. Stanley Beard, Bennett & Wilkins. The boardroom table and chairs, in walnut, were recently supplied by Heal's Contracts Ltd. to the architects' designs. The tabletop is covered in 'Formica' and the chair seats in cream hide, with green wool fabric on the sides and back.

HEAL'S CONTRACTS LTD

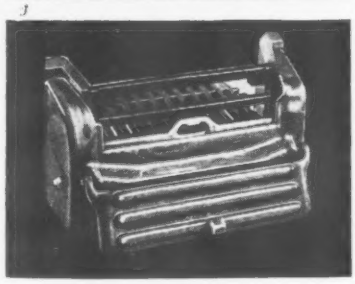
196 TOTTENHAM COURT ROAD, LONDON, W.1 Telephone: MUSEUM 1666

The least expensive and most attractive approach to house warming



ROYAL





We are aware of the present necessity for economy in specifying for housing schemes, and in designing the "Royal" and "Sovereign" Continuous Burning Fires we have succeeded in producing two first class models at the lowest possible price. This cheapness combined with simplicity of design, and ease of operation has gained their immediate acceptance by householders everywhere.

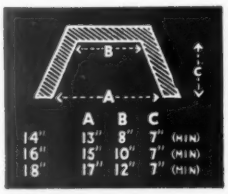
Designed to burn all types of solid fuels, including the cheaper grades now available, a constant supply of hot water is guaranteed, when used in conjunction with a Back Boiler.

The hinged control door eliminates cracked hearth tiles, and is a special feature of both Royal and Sovereign Fires.

Available to suit 14in., 16in. and 18in. openings and in a wide range of colours, both the "Sovereign" and the "Royal" are 'low type' Fires, allowing maximum heat radiation and good visibility of Fire.

SOVEREIGN

We will be pleased to let you have our illustrated leaflet giving complete details.



A	B	C
14"	13"	8" 7" (MIN)
16"	15"	10" 7" (MIN)
18"	17"	12" 7" (MIN)

Fully approved by the Ministry of Fuel and Power for High Output Efficiency and Continuous Burning and recommended by the Coal Utilisation Council.

CASTLE CASTINGS LTD., BROOKS WORKS, CLITHEROE, LANCS.
HPA4

WILLIAM
MALLINSON
& SONS LTD

for
Hardwoods
Veneers
Armourply
Plywood Products

130-150 HACKNEY ROAD · LONDON · E2
TELEPHONE: SHOREDITCH 7654 (10 lines)

Another VOLEX installation . . .



Reproduced by courtesy of Messrs F. Perkins Ltd. of Peterborough

The VOLEX WARM AIR SYSTEM

is recognised as the most efficient and economical system of Heating and Ventilation for Schools, Clinics, Churches, Shops, Offices, Factories, Workshops and all buildings where a pleasant equable atmosphere—essential to health and efficiency—is required. It maintains an even temperature and draughtless ventilation all the year round, and the air in the building can be changed as often as desired according to the processes carried on. The heaters are made either for gas-firing, hand-firing, worm feed stokers or oil-firing.

Ventilate as you heat

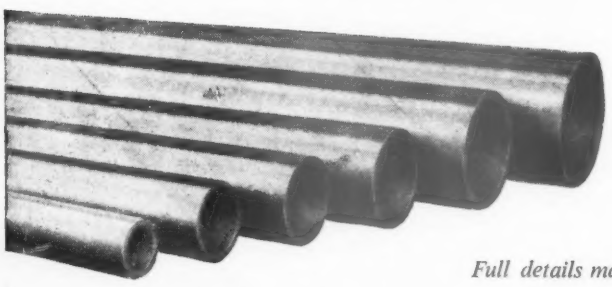
Sole Makers: T. E. SALTER LIMITED TIPTON STAFFS. *Telephone:* TIPTON 1657/1658

NOW PRODUCED IN ENGLAND AT REDUCED PRICES

KEY REGD TRADE MARK

FIBRE PIPES

Use them for Drainage—Effluent Disposal—Irrigation—Ventilation and the protection of Electric Cables.



This material is manufactured from cellulose fibre *completely* impregnated by vacuum and pressure with a special bituminous pitch. It is available in two wall thicknesses—one for laying direct in the ground and the other for laying in concrete.

Full details may be had from our new Leaflet. Please ask for a copy.

THE KEY ENGINEERING COMPANY LIMITED

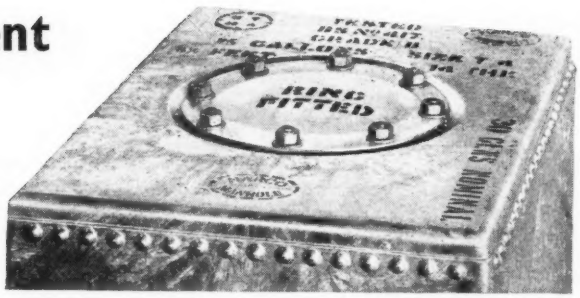
4 QUEEN VICTORIA STREET, LONDON, E.C.4. Telephone: CITy 1185/6 Grams: Keypoint, Cannon, London

Also at Elevator Road, Trafford Park, Manchester, 17. Telephone: Trafford Park 1903. Grams: Keypoint, Manchester

An Important Improvement

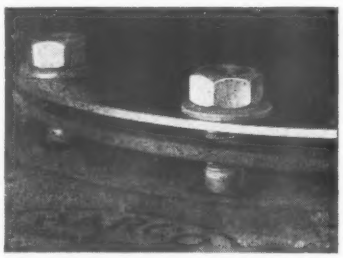
in

HOT WATER TANKS



IN keeping with their progressive policy, and to meet the requirements of the Building Industry, Harveys have designed a new type of Manhole and Cover for 'HARCO' HOT WATER TANKS.

The main advantage of this development is that of preventing the thread of the bolts from coming into contact with water, thereby avoiding corrosion—and the consequent risk of shearing the bolt heads—and greatly facilitating removal of the cover for servicing.



This is achieved by securing the heads of the bolts inside the tank, so that the screwed portion projects outside.

No hemp, red lead or other jointing material is required when fixing the cover other than the India Rubber Ring which is supplied with the tank. This ring, together with the grummets fitted under the bolt heads inside the tank, enables a perfect seal to be made in much less time.

The cover itself is slightly convex to give additional strength and the turned-over edge of the manhole presents a smooth rounded surface which cannot injure the hands or arms when installing the tank.

Ask for List No. AJ873.

'Harco' Patent Manhole & Cover

Please obtain your supplies through your usual Builders' Merchant or Ironmonger.

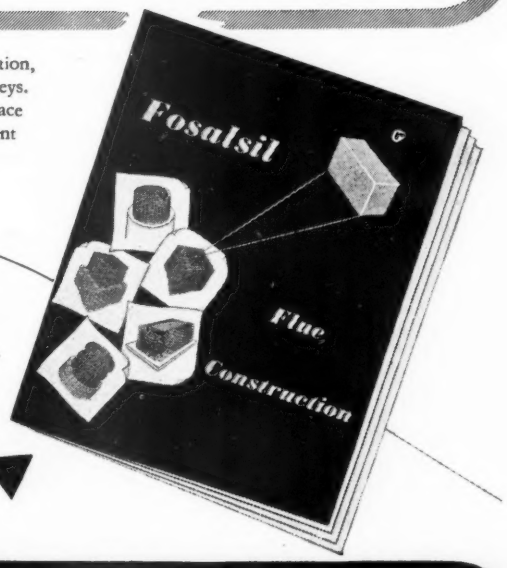
Harvey

Patent No. 664463.

G. A. HARVEY & CO. (LONDON) LTD., Woolwich Road, London, S.E.7. (GREenwich 3232, 22 lines)

Facts about 'FOSALSIL' flue construction

"Fosalsil" Flue bricks are designed either for the entire construction, or for the internal lining, of central heating boiler flues and chimneys. They do more than merely replace the old firebrick lining and air space construction—they eliminate altogether the need for an independent lining and, therefore, an air space.



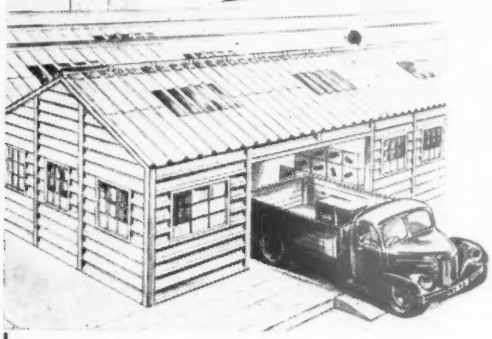
The key to this achievement in solid flue wall design lies in the exceptional physical properties of "Fosalsil" e.g. a co-efficient of expansion less than one third that of firebrick and heat insulating values. *Well! why not write for a copy of our latest brochure and obtain full technical information on this important subject, plus suggested designs to meet standard types of flues and chimneys.*

SOLE MANUFACTURERS OF 'FOSALSIL' FLUE BRICKS

MOLER PRODUCTS LTD. HYTHE WORKS · COLCHESTER

TEL: COLchester 3191 (3 lines) GRAMS: FURMOL Colchester.

UNIA REGD. Concrete Panel Buildings



All the advantages of prefabrication are combined with many of those of permanent types of structure in a new form of precast concrete sectional building.

The basic construction consists of horizontal rebated panels in reinforced concrete which fit over one another to form a flat inside wall. The panels fit into upright stanchions to support the roof trusses. No cement mastic is necessary and the resultant walls are weatherproof and vermin proof. A further advantage is that the time-lag associated with orthodox wet operation is eliminated.

The speed of construction results in considerably reduced costs and requires a minimum of skilled labour. In general the erection cost is less than one-tenth of the prime cost of the building. This British invention has unlimited applications for industry and commerce, such as factories, offices, hospitals, clubs, stores, canteens, garages, workshops or living accommodation.

Write for full particulars to: Dept. Ac **UNIA LTD., VICTORIA STREET, BARNSTAPLE, N. DEVON**

for SPEED in construction of Industrial Buildings



ALWAYS SPECIFY CROFT ADAMANT

PRECAST REINFORCED CONCRETE PORTAL FRAMES

Supplied in standard single or multi spans of 18′ 0″, 25′ 0″, 30′ 0″ and 45′ 0″, including, if required, hollow or solid concrete block walls and partitions, "Big Six" asbestos roofing, asbestos gutters and down pipes, steel windows and roof lights to requirements. Particulars and details on request.

CROFT GRANITE BRICK & CONCRETE CO. LTD.
CROFT, NEAR LEICESTER. Tel.: NARBOROUGH 2261-2-3
London: 7, Victoria Street, Westminster, S.W.1
Tel.: ABBey 4802
Branch Office and Works:
West Bank, Widnes
Tel.: Widnes 2656-7

MODERN GARDENS

BY PETER SHEPHEARD, A.R.I.B.A., A.M.T.P.I., A.I.L.A.



THIS BOOK IS ABOUT the design, planning and planting of the Modern Garden. It will interest all those who design and plan gardens, professionals and amateurs alike, and indeed all who have any love for gardens and gardening. Its author is a practising landscape architect, as well as an architect of buildings and a town planner.
All the gardens illustrated are modern in two senses: first, all have been created during the past twenty-five years; second, all are inspired by the ideas, practical and aesthetic, of the present day and have an affinity with contemporary architecture. They owe something to the practical needs of today—to the need for saving labour, for example, or for withstanding the wear and tear of public use; but they owe even more to the aesthetic ideal, which they share with modern architecture, of sympathetic understanding of the nature of materials; for the landscape architect these are not only the wood, stone, steel and concrete of which buildings are made, but also the great world of living plants.
The author has drawn his examples from all over the world; from Belgium, Brazil, Denmark, England, France, Italy, Sweden, Switzerland and the U.S.A.; they vary from the little twenty-feet-square garden at the back of a London East-end terrace house to the several square miles of Stockholm's famous public parks, and include examples of roof gardens, indoor gardens, long narrow town gardens, large country gardens set in woodland, and gardens in the desert and by the seashore. He provides numerous plans of the gardens and whenever possible gives details of the material used in the construction of paths, walls, terraces, pergolas, etc., and the names of the plants which are grown.
Size 11¼*in. by* 8¾*in., containing* 12 *pages of Introduction and* 120 *pages of illustrations consisting of over* 300 *half tones and line drawings, making a total of* 144 *pages.* 36*s. net, postage* 1*s.* 2*d. inland.*

THE ARCHITECTURAL PRESS 9-13 Queen Anne's Gate, London S.W.1.

DURABILITY

No need to worry about Durability when Storrilux is specified! This easy-flowing, full-bodied paint dries quickly with a brilliant hard gloss which defies corrosion and stands repeated washings.

STORRILUX

STORRY SMITHSON & CO. LTD. HULL

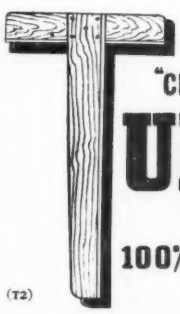


always true to grading

Seventeen basic formulæ guarantee that TURQUOISE pencils are always true to grading, and the grades are as accurately and uniformly spaced as the inches on your rule.

100% "Electronic" graphite, refined in the Eagle attrition mill to 1/25000th" particles, makes the grading still more accurate. It also guarantees the smoothest, most flawless lead for easy working, and a uniformly black and opaque line for perfect reproduction.

You can be sure that every TURQUOISE pencil will give you exactly the line you want from every inch of lead every time . . . without constant snapping, too, because the more compact lead means greater point strength even with a needle point. No other pencil contributes so much to the success of your work. 7d. each; 6/6d. a dozen.



EAGLE

"CHEMI*SEALED" SUPER-BONDED

TURQUOISE

DRAWING PENCILS WITH

100% ELECTRONIC GRAPHITE

(T2)

EAGLE PENCIL COMPANY, ASHLEY ROAD, TOTTENHAM, N.17

one for all...



The A.I.L. System is providing television aerial service to all 18 flats in this modern block on the East Ham Corporation Estate. ONLY ONE AERIAL is in use, and has been carefully sited to preserve the good appearance of this building.

Chief Housing Officer—J. E. Austin, M.B.E.

AIL *Master T.V. Aerial Service*

ANTIFERENCE INSTALLATIONS LIMITED,
WATFORD WAY, MILL HILL, LONDON, N.W.7. HENDON 0151/3

FIT A TROUBLE-FREE
BATLEY
"UP & OVER"

• Designed to supersede hinged doors. • Provides unobstructed access with clear height of 6′ 1″. • Swings open easily, gliding smoothly on ball-bearing wheels. • Can be quickly and easily fitted to any width or height of opening. • Framed and double cross-braced in Aluminium Alloy. • Panelled with Aluminium Alloy or Exterior Grade Mahogany Plywood, grained finish to take varnish or paint.

ALUMINIUM ALLOY £18 EXTERIOR GRADE MAHOGANY £20

DELIVERED FREE ENGLAND AND WALES

Free Brochure and details from:

ERNEST BATLEY LIMITED

63d, COLLEDGE RD., HOLBROOKS, COVENTRY. Tel: COVENTRY 89245/6



BECLAWAT type 9s adjustable spring tape sash balance

Ideal for the easy operation of sash windows, serving hatches and other forms of vertical sliding panel.

A pair of balances is capable of counter-balancing up to a maximum load of 30 lbs.

Spring tension easily increased or decreased.

Universal corner brackets simplify fixing in any position without altering balancing mechanism.

Stainless steel tape housed in rustproofed steel or brass casing.

Brass Face Plate (also illustrated) in any finish, to cover fixing flange recess, supplied as an extra if desired.

TRADE MARK BECLAWAT REGISTERED

Full particulars from

Beckett, Laycock & Watkinson Ltd.

Acton Lane, London, N.W.10

217–70

EXHIBITION DESIGN

Edited by Misha Black, O.B.E. *Contributors: Misha Black*, O.B.E., *Basil Spence*, F.R.I.B.A., *James Holland*, F.S.I.A., *Adrian Thomas*, *Richard Guyatt*, *Lynton Fletcher*, M.A., *J. Mortimer Hawkins*, M.I.E.S.; *H. F. Clark*, A.I.L.A., *Dorothy Goslett*, *Austin Frazer*.

THE PURPOSE OF THIS BOOK IS to show what are the essential qualities of a good exhibition and how to achieve them. It contains over 300 illustrations—photographs, drawings and plans—of well designed recent exhibitions grouped under ' Trade Fairs ', ' Public Exhibitions ', ' Propaganda Exhibitions ', ' Travelling Exhibitions ', and ' National and International Exhibitions '. The technique of exhibition design is covered comprehensively and in detail. Each chapter is written by an expert in his own field. The mass of information the book contains will be of value to the professional exhibition designer and equally to the exhibition promoter.

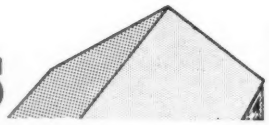
Bound in full cloth boards. Size 9⅝ ins. by 7¾ ins. Second, revised, edition 195 pages over 300 illustrations.

Price 25s. net, postage inland 10d.

THE ARCHITECTURAL PRESS

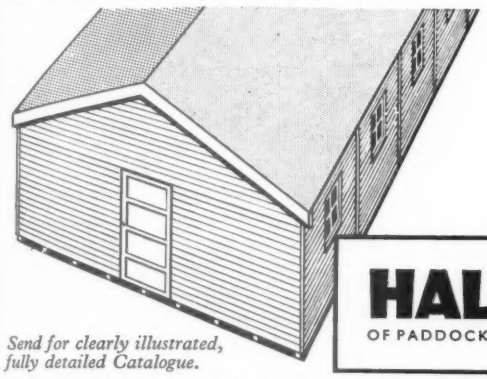
9-13, *Queen Anne's Gate, Westminster, S.W.1.*

Large TIMBER BUILDINGS



For OFFICE or FACTORY EXTENSIONS, GARAGES workshops, farm bldgs, recreation halls, etc.

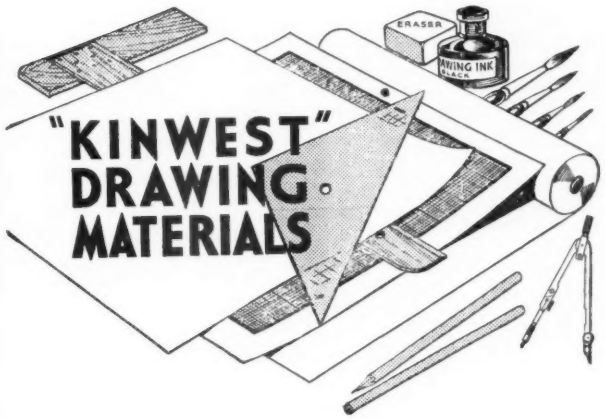
Any timber buildings you like, as large as you like. No materials licence needed. Hall's, the biggest manufacturers, offer the widest range at the lowest prices—with quality *now better than pre-war best.* Only specially selected and seasoned timber is used. Single spans of 10 ft. to 30 ft. and no limit on length. All buildings are creosoted inside and out, with priming coat on windows and doors. They arrive complete with all fittings, ironmongery, putty, ready-cut glass and roofing felt. Erection is simple.



HALL'S
OF PADDOCK WOOD

Send for clearly illustrated, fully detailed Catalogue.

Robt. H. Hall & Co. (KENT) Ltd., 30–61 PADDOCK WOOD, TONBRIDGE, KENT

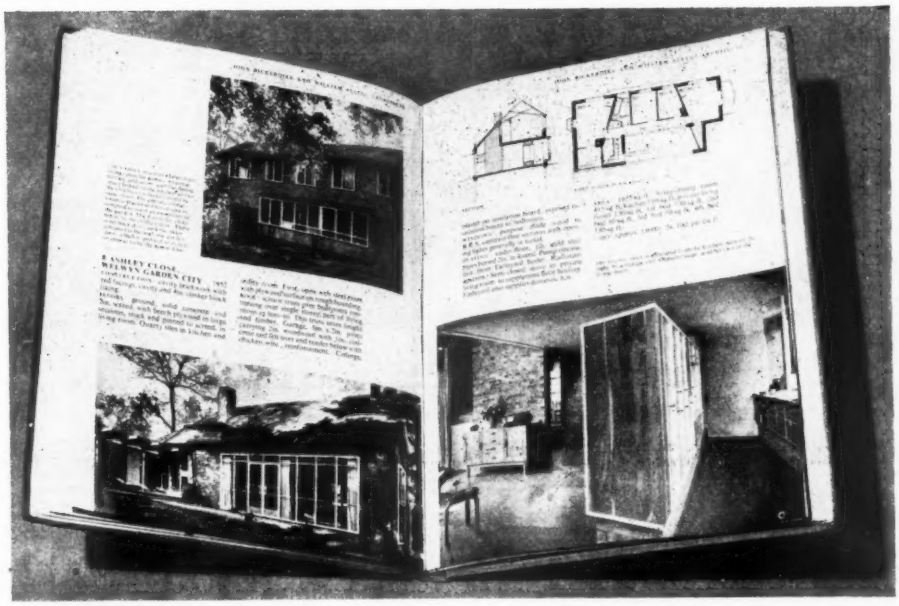


"KINWEST" DRAWING MATERIALS

We are the largest manufacturers of high-grade Drawing Instruments and Slide Rules in the British Empire, and our Kinwest Drawing Materials have gained a reputation throughout the world for superb quality and accuracy. Insist on using only Thornton's for complete satisfaction.

Our illustrated Catalogue, which includes particulars of Drawing Boards, Tee and Set Squares, Scales, Slide Rules, Drawing Instruments, Curves, Protractors, Drawing Materials, etc., is sent Post Free on request.

A. G. THORNTON LTD
Drawing Instrument Specialists
WYTHENSHAWE, MANCHESTER
Tel: WYThenshawe 2277 (4 lines)



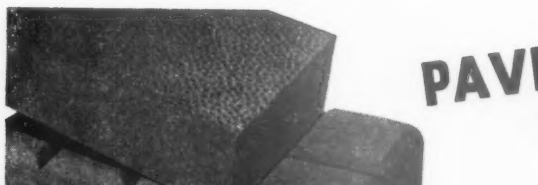
THE NEW SMALL HOUSE

by F. R. S. Yorke, F.R.I.B.A.

& Penelope Whiting, A.R.I.B.A.

THIS NEW BOOK by Mr. Yorke and Miss Whiting consists mainly of a collection of photographs and plans illustrating the most interesting small houses that have been built since the War—mostly in this country but also a few good examples abroad. A short text accompanies each illustration and describes details of construction, equipment, and the materials used. Where possible costs are given. The book has been presented in a way that will make it as useful to the architect in private practice as to the architect engaged on public housing schemes for local government and other authorities. *Size* 9½ *ins. by* 7¼ *ins.* 144 *pages including* 128 *pages of halftone and line illustrations.* 25*s. net, postage* 10*d. inland.*

THE ARCHITECTURAL PRESS, 9-13 Queen Anne's Gate, London, S.W.1.



PAVE THE WAY FOR HARDER WEAR

For factory and other floors exposed to heavy traffic, impact and corrosion, Accrington, 'Nori' Paving Bricks may be specified with the utmost confidence. Made from the same material as the famous Accrington Engineering Bricks. Samples on request.

THE ACCRINGTON BRICK & TILE Co. LTD., ACCRINGTON
Telephone: Accrington 2684

ACCRINGTON 'NORI' PAVING BRICKS

MOULDEX

RUBBER, PLASTIC
AND
JOINTLESS RUBBER

FLOORS

ARE USED THROUGHOUT THE COUNTRY IN MANY PROMINENT BUILDINGS

FOR

HARD WEAR, SILENCE and ECONOMY

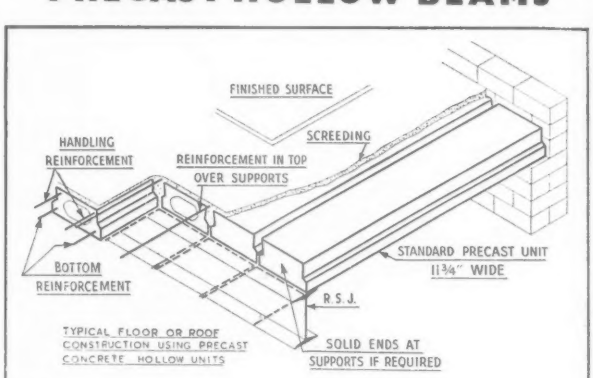
BY

BANKS : COUNTY COUNCILS : LONDON TRANSPORT
MINISTRY OF WORKS : G.P.O. : RAILWAYS : HOTELS
HOSPITALS : SCHOOLS : FACTORIES : THEATRES
CINEMAS : STORES

ESTIMATES WITH PLEASURE

BRITISH MOULDEX RUBBER CO. LTD.
Manufacturers of Rubber, Plastic and Jointless Flooring
28-30 HYTHE ROAD, WILLESDEN, N.W.10
LAD. 2454
MANCHESTER WELLINGBORO

Raphcon reinforced
PRECAST HOLLOW BEAMS



We take pleasure in bringing to the notice of Architects and Engineers our RAPHCON BEAMS which meet all requirements of modern design for floor and roof construction.
RAPHCON BEAMS are made with a patented SOLID Collapsible Core which gives a uniform thickness throughout the length of the beam, and the shape of the beam ensures an even distribution of the loading.

RAPHCON BEAMS are 11¾in. wide and are made 5in., 6in., 7in. or 10in. deep for various spans and superimposed loads in accordance with Architects'or Engineers'specifications and designs.

Raphcon

Licencees for the Counties of :—
SHROPSHIRE, CHESHIRE, MONTGOMERYSHIRE, MERIONETHSHIRE, WORCESTERSHIRE, STAFFORDSHIRE, RADNORSHIRE

Full details and Specification for RAPHCON BEAMS can be obtained from :—
JOHNSTON BROTHERS (Contractors) LTD. DOSELEY QUARRIES, DAWLEY, SALOP
Tel. No.: DAWLEY 362/3
London Office : 721 Ibex House, Minories, E.C.3

I.G.B.

ESTD. S.W. 1898

IRON STAIRCASES
STEELWORK

FARMER
& SON LIMITED

BALUSTRADING
FENCING

FABRICATORS IN STEEL

STAIRWAY HOUSE, COURTHILL ROAD, LEWISHAM LONDON S.E.13. 'PHONE: LEE GREEN 4334-9.

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

25s. *per inch; each additional line,* 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 *inclusive or a woman aged* 18-59 *inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order,* 1952.

CAMBRIDGE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.

Applications are invited for the appointment of a Planning Assistant, between A.P.T., Grades V and VIII, of the National Joint Council's scales (salary: £595 to £835 per annum), according to experience.

Candidates should be Corporate Members of the Royal Institute of British Architects, and preferably of the Town Planning Institute, and be able to drive a car. The successful candidate will be concerned with the Architectural aspects of the Department's responsibilities.

The post is a superannuable one, and the successful candidate will be required to pass a medical examination. The post is also subject to conditions of service from time to time approved by the Council, and to being terminated by either side giving to the other one month's notice in writing. Financial assistance, up to £2 weekly for a period not exceeding six months, may be given if the person appointed cannot obtain housing accommodation and has to maintain his present residence in addition to the expense of residence in Cambridge.

Applications, stating age, past and present appointments (with dates), experience, qualifications, present salary, and the names of two referees, should be received by the undersigned, not later than the 8th February, 1954.

CHARLES PHYTHIAN,
Clerk of the County Council.
Shire Hall, Castle Hill, Cambridge. 1467

COUNTY BOROUGH OF WEST HAM.
BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.

Applications are invited from Associates R.I.B.A. for post of ASSISTANT ARCHITECT (£670×£20×£20×£25—£735, plus London allowance). Enthusiasm and experience in Housing and Education Work required. Application forms (returnable by Monday, 15th February, 1954) from the Borough Architect and Planning Officer, Thomas E. North, O.B.E., F.R.I.B.A., Dist.T.P.I., 70, West Ham Lane, Stratford, E.15. 1533

AIR MINISTRY WORKS DEPARTMENT requires ARCHITECTURAL ASSISTANTS in Design Branch. Applicants should be experienced in planning and preparation of working drawings and details for permanent and semi-permanent buildings. Professional quals. an advantage. Vacancies mainly London, few Provinces. Appointments carry liability for overseas service, for which allowances payable. Salaries up to £733 p.a., starting pay dependent upon age, quals. and experience. Extra duty allowance or overtime payable. Reasonable prospects of promotion. Posts temporary and non-pensionable but have long-term possibilities. Competitions held periodically to fill established vacancies. Applications from natural born British subjects only, quoting BH, and stating age, quals., and previous appointments, giving dates and stating type of work done, to Air Ministry, S.2(h)/NA, Cornwall House, Stamford Street, London, S.E.1. 1595

WEST SUSSEX COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

ARCHITECTURAL ASSISTANT at a salary in accordance with Grade III A.P.T. Division (£525-£570 per annum) of the National Scales of Salaries;

ARCHITECTURAL ASSISTANT at a salary in accordance with Grade II A.P.T. Division (£495-£540 per annum) of the National Scales of Salaries.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom detailed applications must be submitted not later than 18th February, 1954.

T. C. HAYWARD.
Clerk of the County Council.
County Hall, Chichester.
27th January, 1954. 1609

NORTHAMPTON BOROUGH ARCHITECT'S DEPARTMENT.

1. SENIOR ASSISTANT ARCHITECT (Housing), Grade A.P.T. VIII (£760-£835).
2. ASSISTANT ARCHITECT (Housing), Grade A.P.T. VI (£670-£735).

Particulars of above appointments and forms of application to be returned by 15th February, 1954, may be obtained from the Borough Architect's Department, Guildhall, Northampton.

C. E. VIVIAN ROWE.
Town Clerk.
1574

BRITISH ELECTRICITY AUTHORITY.
EAST MIDLANDS DIVISION.

Applications are invited for the following positions within the Division.

CIVIL ENGINEERING DRAUGHTSMEN, CONSTRUCTION DEPARTMENT. (Vacancy No. 1/54.)

Candidates should have experience in design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., for general building construction drainage and sanitation schemes, associated with official and administrative buildings.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433,£567 per annum) of Schedule D of the National Joint Board Agreement.

ENGINEERING DRAUGHTSMEN (MECHANICAL), CONSTRUCTION DEPARTMENT. (Vacancy No. 2/54.)

Senior Draughtsmen are required in the Mechanical Section of the Construction Department at North Wilford Power Station. Candidates should have experience in one or more of the following:—

(i) Design and layout of Power Station equipment, including turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries.
(ii) H.P. and L.P. steam and feed pipework. Condensing plant and feed heating systems.
(iii) Conveyor plant, coal handling systems and material handling of station auxiliary equipment.

Salary and conditions of service will be in accordance with the National Joint Board Agreement Grade 5 (£567-£671 per annum) and Grade 6 (£433-£567 per annum) of Schedule D according to experience.

ENGINEERING DRAUGHTSMEN (ELECTRICAL), CONSTRUCTION DEPARTMENT. (Vacancy No. 3/54.)

Candidates should have experience in the preparation of layouts and diagrams for the installation of E.H.T. and L.T. Switchgear, transformers, E.H.T. and L.T. cables; knowledge of protective gear systems would be an advantage.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

The above positions will be pensionable within the provisions of the British Electricity Authority and Area Boards Superannuation Scheme.

Applications should be submitted on the official form which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, and should be returned to the undersigned. Please quote Vacancy No.

L. F. JEFFREY,
Divisional Controller.
1566

LONDON ELECTRICITY BOARD.
ARCHITECTURAL DRAUGHTSMAN.

Applications are invited for the above position in the Architect's Section of the Chief Engineer's Department in Central London. Applicants should be neat draughtsmen, and preferably have had several years' experience in an Architect's office.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 6—£458 to £595 7s. per annum, inclusive of London allowance.

Application forms obtainable from Secretary, 46, New Broad Street, E.C.2, to be returned completed within 14 days of the publication of this advertisement. Please enclose addressed envelope and quote ref. V/1683/A. on envelope and all correspondence. 1541

SURREY COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
APPOINTMENT OF SENIOR PLANNING ASSISTANTS.

Applications are invited for the appointment on the Staff of the County Planning Department of two SENIOR PLANNING ASSISTANTS on A.P.T. Grade VIII (Salary £760×£25—£835 per annum).

The duties cover the administration of the control of development in all its aspects and involve consultations with members of the public, and with Government Departments and other Authorities concerned. Experience in the preparation of Development Plans (including Town Maps) and in the preparation and giving of evidence at Public Inquiries is important.

The successful applicants will be required to attend Committees and to work closely with Senior Officers of County Departments and of County District and other Authorities concerned.

Applicants for the appointments should be corporate members of the Town Planning Institute and of one of the following:

Royal Institute of British Architects,
Royal Institution of Chartered Surveyors,
Institution of Municipal Engineers.

The persons appointed will be contributory employees under the Local Government Superannuation Act, 1937, and subject to the Council's conditions of service and will be required to pass a medical examination.

Applications appropriately endorsed, and stating age, qualifications, present position and experience with the names of three referees, must reach the undersigned not later than the 20th February, 1954.

Canvassing, either directly or indirectly, will disqualify.

W. W. RUFF,
Clerk of the Council.
County Hall, Kingston-upon-Thames. 1611

CITY OF NOTTINGHAM.
ASSISTANT ARCHITECT, GRADE 6-7.

Applications are invited from Associates of the Royal Institute of British Architects for the above position in the City Engineer's Department.

The salary will be within Grade 6, i.e., £670-£735, or Grade 7, i.e., £710-£785, according to the successful candidate's experience.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, as amended by Part XI of the Nottingham Corporation Act, 1952. The successful candidate will be required to pass a medical examination.

Applications are to be made on forms to be obtained from R. M. Finch, Esq., O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, Nottingham, to whom they should be returned not later than 24th February, 1954.

T. J. OWEN,
Town Clerk.
Guildhall, Nottingham. 1610

SALOP COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments to the Established Staff:—

(1) SENIOR ASSISTANT ARCHITECTS. A.P.T., Grade IX (£815 to £935 p.a.). Applicants should be Registered Architects, preferably Members of the R.I.B.A., with good experience and a keen appreciation of the design and construction of modern buildings.

(2) SENIOR ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade VIII or IX (£760 to £835, or £815 to £935 p.a.), depending on the qualifications and experience of the successful applicant. Applicants should be Members of the Royal Institution of Chartered Surveyors (Sub-Division III, Quantities), and must be thoroughly experienced in the preparation of Bills of Quantities, estimating, interim valuations, final accounts and general contract procedure for large building projects.

It is expected that housing accommodation in the form of a flat will be available in the near future if required by the successful applicant for each of these appointments. Until the flat is available or other accommodation obtained, a separation allowance of not exceeding 30s. a week will be paid to a married officer taking up this appointment, together with third-class return railway fare once a month to visit his family, such allowances to be limited to a period of six months or until such time as the officer is able to obtain accommodation for himself and his family in Shropshire, whichever is the earlier.

Application forms and conditions of the appointments may be obtained from the County Architect, C. H. Simmons, A.R.I.B.A., Dip.T.P., Column House, London Road, Shrewsbury, to whom they must be returned, accompanied by copies of three recent testimonials, not later than Friday, 19th February, 1954. 1520

ANTRIM COUNTY COUNCIL.
PLANNING DEPARTMENT.

Applications for the undernoted positions will be received by me on or before Saturday, 3rd April, 1954. Applicants should state age and give full details of qualifications and experience, and names of two referees.

It is the Council's policy to give special consideration to candidates who have served in Her Majesty's Forces in Wartime.

The appointments are subject to three months' notice on either side and to the Local Government (Superannuation) Act (Northern Ireland), 1950.

(*a*) SENIOR PLANNING ASSISTANT.—Applicants must be Corporate Members of the Town Planning Institute and of the Royal Institute of British Architects; and must have had considerable experience in the design of buildings of all descriptions, particularly of private development and local authorities' housing types for the purpose of Interim Development control, and in the drafting of Development plans for the preparation of Planning Schemes.

The successful candidate must provide a car, and an allowance will be paid on the Council's scale.

Salary scale: £850×£25—£975.

(*b*) SENIOR SURVEYOR.—Applicants must be Corporate Members of the Royal Institution of Chartered Surveyors, preferably qualified in the land surveying section of the Institution; and must have had considerable experience in control of draughtsmen/surveyors, in the survey and plotting of post-ordnance development on Ordnance Maps, in levelling and in theodolite work, and/or tachometric survey for the determination and plotting of contour lines on Ordnance Maps at yard intervals, and the survey and plotting of road lines. Experience in the offices of Town and Country Planning Authorities or consultants would be an added qualification.

Salary scale: £710×£25—£785.

W. S. HENDERSON,
Secretary.
County Courthouse, Crumlin Road, Belfast. 1594

CITY ARCHITECT'S DEPARTMENT.
MANCHESTER.

Applications are invited from persons having suitable qualifications and/or experience for the following appointments to the permanent staff:—

(*a*) ASSISTANT QUANTITY SURVEYOR. Salary: A.P.T., Grade Va, £625 to £685 per annum.

(*b*) QUANTITY SURVEYING ASSISTANT. Salary: A.P.T., Grade IV, £555 to £600 per annum.

Further particulars and form of application may be obtained from the City Architect, Town Hall, Manchester, 2, the completed form to be returned to the same address by 16th February, 1954. Canvassing is prohibited. 1614

PEAK DISTRICT NATIONAL PARK.
DEPUTY PLANNING OFFICER required by Peak Park Planning Board. Salary: £840×£40—£960. Office at Bakewell. Will also be required to assist the Planning Officer in his capacity as Area Planning Officer for Derbyshire County Council for part of north-west Derbyshire. Must be Member or Associate Member of Town Planning Institute; architectural or other technical qualifications desirable; should have considerable practical experience in administration of a Planning Department and in development plan preparation. Application forms and further particulars from Clerk of the Board, County Offices, St. Mary's Gate, Derby. Closing date: Saturday, 6th March, 1954. 1613

KENT EDUCATION COMMITTEE.
MEDWAY COLLEGE OF ART.
EASTGATE, ROCHESTER, KENT.
Principal: C. STANLEY HAYES, A.R.C.A.(Lond.).
DEPARTMENT OF ARCHITECTURE.
Required, as soon as possible, part-time **STUDIO MASTERS** for the above Department. Applicants should be Members of the R.I.B.A., qualified by examination. Full details should be given in application.
Application by letter, giving brief outline of professional and/or teaching experience, should be forwarded to the Principal within 14 days of the appearance of this advertisement. 1616

WARWICKSHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments:—
(1) **ASSISTANT HEATING ENGINEER**, on a salary Grade VI (£670-£735). Candidates should be graduates of the Institution of Heating and Ventilating Engineers.
(2) **ASSISTANT ARCHITECTS**, Grade A.P.T., V (£595-£645). Candidates should be members of the Royal Institute of British Architects.
The appointments will be subject to the Scheme of Conditions of Service of the National Joint Council for Local Authorities and to Local Government Superannuation Acts, 1937 and 1953.
Application forms can be obtained from G. R. Barnsley, F.R.I.B.A., County Architect, Shire Hall, Warwick, to whom they are returnable by 12th February, 1954.
L. EDGAR STEPHENS,
Clerk of the Council.
Shire Hall, Warwick. 1585

LINDSEY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Vacancies on permanent staff for:—
(a) **ASSISTANT QUANTITY SURVEYOR**, Grades A.P.T., Va and VI (£625-£735) for person holding Final R.I.C.S., or Grade A.P.T., IV (£555-£600) for person holding Intermediate R.I.C.S.
(b) **JUNIOR QUANTITY SURVEYOR**, A.P.T., I (£465-£510).
Above salaries increased by £25 at all points from 1st April, 1954.
N.J.C. Conditions of Service. Relationship to member or senior officer of the Council to be disclosed in writing with application. Canvassing will disqualify. Applications, stating age, qualifications and experience, with names of two persons to whom reference can be made, to be sent to undersigned by 16th February, 1954.
A. RONALD CLARK, A.R.I.B.A., A.M.T.P.I.,
County Architect.
County Offices, Lincoln. 1617

WEST MIDLANDS GAS BOARD.
ARCHITECTURAL ASSISTANT.
Applications are invited for the above appointment on the Divisional Staff of the Walsall and District Division.
Candidates should be capable of preparing sketch plans, working drawings and architectural details in connection with new industrial projects with a minimum of supervision.
The salary will be in accordance with Grade 6 (£490 × £20—£570 per annum) of the National Salary Scales for Gas Staffs.
The post is pensionable and the successful candidate may be required to pass a medical examination.
Applications stating age and giving full particulars of education, qualifications and experience, together with the names of two referees, should be addressed to Mr. E. Hardiker, Divisional General Manager, West Midlands Gas Board, Walsall, and District Division, Walsall Factory Estate, Tame Bridge, West Bromwich Road, Walsall, to reach him within fifteen days of the appearance of this advertisement.
F. H. CURETON,
Secretary to the Board.
1561

LIVERPOOL REGIONAL HOSPITAL BOARD.
SENIOR ASSISTANT QUANTITY SURVEYOR
(£875×£30 to £1,025 p.a.).
Applications invited for above appointment in the department of the Regional Architect, T. Noel Mitchell, B.Arch., A.R.I.B.A.
Candidates must hold Corporate Membership of the Royal Institute of Chartered Surveyors, and have had considerable experience in a senior capacity in all the duties of a Quantity Surveyor.
The appointment will be subject to the National Health Service (Superannuation) Regulations.
Applications, stating age, experience, present and previous appointments and salary, and names and addresses of three referees (two technical), to reach the undersigned by 17th February, 1954.
VINCENT COLLINGE,
Secretary to the Board.
19, James Street, Liverpool, 2. 1618

SURREY COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
APPOINTMENT OF PLANNING ASSISTANT.
Applications are invited for the appointment on the Headquarters Staff of the County Planning Department of a **PLANNING ASSISTANT** on A.P.T. Grade V (Salary £595×£15/£20—£645 per annum, plus £30 per annum London Weighting).
The duties include the inspection of proposals to develop, the search for land to satisfy the requirements of the County Services, and the preparation of reports for Committees. They involve discussions with prospective developers, with owners of land, or their Agents, and with the Officers of County Departments, and of County District and other Authorities concerned.
Applicants for the appointment should be corporate members of one of the following:
Town Planning Institute.
Royal Institute of British Architects,
Royal Institution of Chartered Surveyors,
Institution of Municipal Engineers.
The person appointed will be a contributory employee under the Local Government Superannuation Act, 1937, and subject to the Council's conditions of service and will be required to pass a medical examination.
Applications appropriately endorsed, and stating age, qualifications, present position and experience, with the names of three referees, must reach the undersigned not later than 20th February, 1954.
Canvassing, either directly or indirectly, will disqualify.
W. W. RUFF,
Clerk of the Council.
County Hall, Kingston-upon-Thames. 1612

FIFE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments:—
(a) **SENIOR ASSISTANT ARCHITECT** for the Schools Section of the above Department at Cupar. Salary scale: £760, rising to £870 per annum. Candidates must be Associate Members of the Royal Institute of British Architects, and have had practical experience in contemporary design and construction and supervision of building works. Experience of school work will be advantageous.
(b) **ASSISTANT QUANTITY SURVEYORS** (2), for the above Department situated at Cupar. Salary scale: £630, rising to £770 per annum. Applicants should have passed the Final Examination of the Royal Institute of Chartered Surveyors and have had practical experience in the preparation of estimates and schedules of quantities, measuring up and the adjustment of final accounts for all trades in connection with schools and housing (traditional and non-traditional).
(c) **ARCHITECTURAL ASSISTANTS** (2) for the above Department situated at Kirkcaldy. Salary scale: £630, rising to £770 per annum, with placing according to experience. Applicants should have had experience in the preparation of plans, specifications, etc., for architectural work usually undertaken by a local authority.
(d) **ARCHITECTURAL DRAUGHTSMEN** (4) for the above Department of the Council situated at Cupar. Salary scale: £465, rising to £565 per annum. Applicants should be quick and accurate Draughtsmen, preferably having had experience in an Architectural Drawing Office.
Consideration may be given to meeting the housing needs of the successful candidates. The successful applicants, if under 45 years of age and subject to their passing a medical examination will be admitted to the Council's Superannuation Scheme.
Applications, stating age, experience, qualifications and post applied for, accompanied by copies of recent testimonials, should be lodged with the undersigned not later than 15th February, 1954.
MATTHEW POLLOCK,
County Clerk.
County Buildings, Cupar, Fife. 1592

BOROUGH OF WATFORD.
BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT.
APPOINTMENT OF:
(a) **CHIEF ASSISTANT QUANTITY SURVEYOR.**
(b) **ASSISTANT ARCHITECT, A.P.T. II-IV.**
Applications are invited for the above permanent appointments.
Applicants for post (a) should hold an appropriate professional qualification and be accustomed to the preparation of Bills of Quantities, Specifications, Estimates, and settlement of accounts in connection with Housing Estates, Public Building and general building work under the Local Authority.
Salary within Grade A.P.T. VIII of the National Scale. £760-£835 p.a.
Applicants for post (b) will be graded according to qualifications and experience.
Forms of application from the undersigned, returnable by 15th February, 1954.
Housing accommodation cannot be provided by the Council.
F. C. SAGE, A.M.I.C.E., M.I.Mun.E.,
Borough Engineer & Surveyor.
Town Hall, Watford. 1575

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
(a) **PLANNING OFFICERS**, Grade III (up to £862 10s.).
(b) **PLANNING ASSISTANTS** (up to £721).
Professional qualifications: A.R.I.B.A., A.R.I.C.S. and/or A.M.T.P.I. required. Application forms and particulars from Architect (AR/EK/P/4), County Hall, S.E.1. (1322) 1330

HADLEIGH URBAN DISTRICT COUNCIL.
ARCHITECT.
The Council are seeking to engage the services of a duly qualified Architect or firm of Architects who reside, or practice from an office, within 15 miles of Hadleigh. The R.I.B.A. scale of fees for State-Aided Housing Schemes will apply.
For the information of applicants, the average rate of post-war council building has been 20 houses a year and, apart from normal Council-house construction, the Council have in mind schemes for the provision of flats and elderly people's bungalows.
Architects who are interested in the above are invited to write to the undersigned giving details of experience and other relevant information not later than Monday, the 8th February, 1954. They should also state whether they would be able and prepared to carry out Quantity Surveying relative to schemes to be placed under the supervision of the appointee.
H. R. WOOLVETT,
Clerk to the Council.
32, High Street, Hadleigh.
23rd January, 1954. 1570

BOROUGH OF WORTHING.
BOROUGH ENGINEER'S DEPARTMENT.
QUANTITY SURVEYOR.
Applications are invited for the above appointment at a salary in accordance with Grade A.P.T. VI, of the National Joint Council's Scale of Salaries, i.e., £670-£735 per annum.
Applicants should have passed the Final Examination of the Royal Institution of Chartered Surveyors, or should hold other equivalent qualifications, and should have good experience in estimating for new works, taking off, abstracting and billing quantities, and measuring up and settling final accounts.
The appointment will be subject to the National Scheme of Conditions of Service of Local Government Officers; to the provisions of the Local Government Superannuation Act, 1937; and to the successful candidate passing satisfactorily a medical examination. The appointment will be determinable by one month's notice on either side.
The Council will assist in finding housing accommodation for the sucessful applicant if required.
Applications, endorsed "Quantity Surveyor," stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be delivered to the Borough Engineer, Town Hall, Worthing, not later than noon on Monday, 15th February, 1954.
ERNEST G. TOWNSEND,
Town Clerk.
Town Hall, Worthing.
25th January, 1954. 1586

HACKNEY BOROUGH COUNCIL require **TWO ARCHITECTURAL DRAUGHTSMEN.** Salary: £465 per annum—£495 per annum (A.P.T.I.), plus London weighting allowance.
Candidates must have had a good technical education, and be neat and expeditious architectural draughtsmen, with a sound knowledge of building construction.
Application form and general conditions of appointment obtainable from the Town Clerk, Town Hall, Hackney, E.8, returnable, duly endorsed, by first post 18th February, 1954. 1593

COUNTY BOROUGH OF GREAT YARMOUTH.
EDUCATION COMMITTEE.
SCHOOLS ARCHITECT'S DEPARTMENT.
Applications are invited from Associate Members of the Royal Institute of British Architects for the appointment of SENIOR ASSISTANT ARCHITECT on the permanent staff. Salary: Grade VII (£710-£785).
Candidates should have a knowledge of modern school design and construction.
The Council are unable to assist with housing accommodation. An allowance of 25s. per week will be paid for a period not exceeding six months, in the event of a married man being appointed who is unable to find accommodation.
Further particulars and forms are to be obtained from the Schools Architect, 22, Euston Road, Great Yarmouth, to whom they should be returned by the 22nd February, 1954.
D. G. FARROW,
Chief Education Officer.
1615

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
Vacancies for **TECHNICAL ASSISTANTS** (up to £721) in Structural Engineering Division. Work includes steelwork and reinforced concrete design and detailing for Council's building, and checking structural designs and calculations under London Building Acts.
Application forms from Architect (AR/EK/SE/5), County Hall, S.E.1. (1270) 1057

SOUTH-EASTERN REGIONAL HOSPITAL BOARD, SCOTLAND.
REGIONAL ARCHITECT'S DEPARTMENT.
A vacancy occurs for an Assistant Architect on a salary scale £600 × £25—£865 per annum, headquarters in Edinburgh.
Applicants must be Registered Architects. Experience in the design of hospital building is desirable but not essential.
Applications, giving details of age, qualifications, experience, along with the names and addresses of two referees, should be sent to the REGIONAL ARCHITECT, 8, DRUMSHEUGH GARDENS, EDINBURGH, 3, on or before FRIDAY, 12th FEBRUARY, 1954. 1558

Tenders for Contracts

6 lines or under, 12s. 6d.; each additional line, 2s.

COUNTY BOROUGH OF BRIGHTON.
To Manufacturers of Passenger Lifts:
TOWN HALL LIFT.

The Council invite tenders for dismantling the existing passenger lift and for the installation of a complete new lift at the Town Hall, Brighton.

Detailed particulars and form of tender may be obtained from the Borough Engineer & Surveyor, 26-30, King's Road, Brighton, 1.

Tenders in envelopes provided are to be delivered to the undersigned not later than Saturday, 27th February, 1954.

The Council does not bind itself to accept the lowest or any tender.

W. O. DODD,
Town Clerk.

Town Hall, Brighton.
22nd January, 1954. 1559

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she is, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

CO-OPERATIVE WHOLESALE SOCIETY, LTD., ARCHITECT'S DEPARTMENT, LONDON.

ASSISTANT ARCHITECTS required, of Intermediate R.I.B.A. standard, capable of preparing sketches, working drawings and details under supervision of Senior Architects,
and
JUNIOR SHOPFITTING DRAUGHTSMAN—must have completed National Service.

The appointments are permanent, and offer prospects of up-grading.

Successful candidates will be required to undergo medical examination for compulsory superannuation scheme.

Applications, stating age, experience, qualifications and salary required, to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London, E.1. 1433

ARCHITECTURAL ASSISTANT required by large firm of building and civil engineering contractors for the development of Housing Estates in the Midlands. Good salary and prospects for young Architect with realistic and commercial ideas. Reply to Box 1502.

ARCHITECTURAL ASSISTANTS required for busy practice engaged upon schools, industrial buildings, offices, etc. Write, giving full particulars of qualifications, experience and salary required, to Johns & Slater, F./A.R.I.B.A., 32, Foundation Street, Ipswich. 1536

ARCHITECTURAL DRAUGHTSMEN required with at least 10 years' office experience in London. Salary range: £700 to £1,000. Long-established London office. 'Phone LANgham 4861. 1515

CHIEF ARCHITECTURAL ASSISTANT required; small busy, contemporary office. Salary approximately £800, according to experience and ability. Write, stating full particulars, Box 1514.

SENIOR ARCHITECTURAL ASSISTANT (age 30/45) required by City firm of Chartered Surveyors to undertake important restoration and redevelopment projects in the London area. Permanent post of variety, interest and responsibility. Salary: £700-£800 p.a. Write, giving age, experience, and qualifications. Box 1512.

ARCHITECTURAL ASSISTANT required, intermediate standard, North Devon office. Box 1582.

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9829.

SCHOOL-TRAINED ASSISTANT, especially interested contemporary design and colour, required by established London firm. Office experience not essential. Model making ability desirable. Salary: £600-£700 per annum. Box 1522.

WEST END Architect urgently requires ASSISTANTS. Salary: £10 per week. Full particulars including age and details of experience, to Box 1510.

ASSISTANT ARCHITECT required. Write, stating experience and salary required, to Portess & Richardson, Lloyds Bank Chambers, Peterborough. 1529

ARCHITECTS in South-East Scotland require assistant, qualified or final standard. Apply stating age, experience and salary required. Box 1576.

JUNIOR ARCHITECTURAL ASSISTANT required Intermediate Stage. Apply—in writing—Joshua Clayton & Deas, High Row Chambers, Darlington, Co. Durham. 1578

ARCHITECTS with practice in Liverpool offer an appointment for an Assistant. Qualifications: Member of R.I.B.A., a capable draughtsman, experienced in managing drawing office, within age limits of 35 to 50 years. Salary offered £800-£1,000 per annum according to experience and ability. Apply Box 1579.

ARCHITECTS, Plymouth, require male Assistant, quick draughtsman, capable of preparing ½-in. scale drawings and details of industrial and domestic work with little supervision. Salary around £500 according to experience. Details to Box 1580.

CHIEF ASSISTANT ARCHITECT required in small growing Midlands practice, with varied work over wide area. School training and T.P. qualifications are desirable; ability in contemporary design and construction essential. Salary up to £700 with good prospects. Box 1605.

SENIOR ASSISTANT required. N.E. London office. Contemporary outlook and some knowledge of Commercial and Industrial buildings desirable. Write age, experience and salary required. Box 1565.

ARCHITECTURAL ASSISTANT of intermediate standard required. Previous office experience essential. Apply in writing, stating age and experience. Salary £300-£450 according to experience. Harrison & Stevens, 9, Gt. James' Street, Bedford Row, W.C.1. 1567

UNIVERSITY OF OXFORD: ARCHITECTURAL DRAUGHTSMAN of Inter standard required immediately. Experience in general alteration and small works an advantage. Salary about £400. Apply fully to the Surveyor to the University, 5, South Parks Road, Oxford. 1571

MECCA LIMITED are considering the employment of a full-time qualified architect for service with the Company. This should be a wonderful opportunity for an ambitious young man round about 30 years of age. Write to D.H.D., 76, Southwark Street, S.E.1, stating salary and qualifications. Applicants must be fully qualified. 1572

IMPERIAL CHEMICAL INDUSTRIES, LTD., Billingham Division, require the services of additional ARCHITECTURAL ASSISTANTS, up to 30 years of age. Preference will be given to applicants who have recently graduated or at least hold the Intermediate certificate of the A.R.I.B.A. Write, giving full details, to the Staff Manager, Imperial Chemical Industries, Ltd., Billingham Division, Billingham, Co. Durham, quoting advertisement reference I.1. 1588

ARCHITECTURAL ASSISTANT required as a senior designer in drawing office of leading prefabricated building manufacturers at their Rochester Works. Quick neat draughtsman with experience of prefabricated systems and with ability not only to plan but also to design and calculate efficient timber structures. Pension scheme. Send full details of training, experience and capabilities to Box 1568.

YOUNG ARCHITECTURAL ASSISTANT wanted for West End office. Capable of preparing working drawings. 5-day week. State salary. Box 1584.

J. SAINSBURY, LTD., require JUNIOR ARCHITECTURAL ASSISTANT, up to Intermediate standard, for their Building Development Department. Commencing salary up to £500. Applicants must be free of obligation for National Service. Practical office experience required, together with sound knowledge of building construction, ability to survey existing premises and prepare working drawings and details. Contributory superannuation scheme.

Apply, giving age, qualifications and experience, to Personnel Department, J. Sainsbury, Ltd., Stamford House, Stamford Street, Blackfriars, S.E.1. 1604

WANTED.—ARCHITECTURAL ASSISTANT, to design modern shop fronts and shop interiors. Capable of preparing perspectives. A permanent post with salary by arrangement. Apply William Mason, Gelderd Road, Leeds, 12. 1602

ARCHITECTURAL ASSISTANT required. Finals standard. Full particulars to W. S. Hattrell & Partners, 1, Queens Road, Coventry. 1601

CECIL HOWITT & PARTNERS, Architects, St. Andrew's House, Mansfield Road, Nottingham, require qualified and experienced ARCHITECTURAL ASSISTANTS. Please apply in writing, giving full details and stating salary required. 1600

ARCHITECT.—South London Engineers, manufacturing Specialised Product, associated with General Building Construction, have permanent appointment to offer. Some experience in Factory Building necessary. State, in confidence, qualifications, age, experience, salary, etc. Box 1599.

ARCHITECTURAL ASSISTANT, with office experience, required immediately for London office, having a varied practice. Must be a neat draughtsman with a sound knowledge of construction. Salary £600 p.a. Apply Box 1598.

ARCHITECT'S ASSISTANT (Intermediate standard) required by London Firm of Consulting Engineers and Architects, with mainly industrial practice. Previous office experience essential. Salary £350-£400 p.a., according to experience. Application to Box 1597.

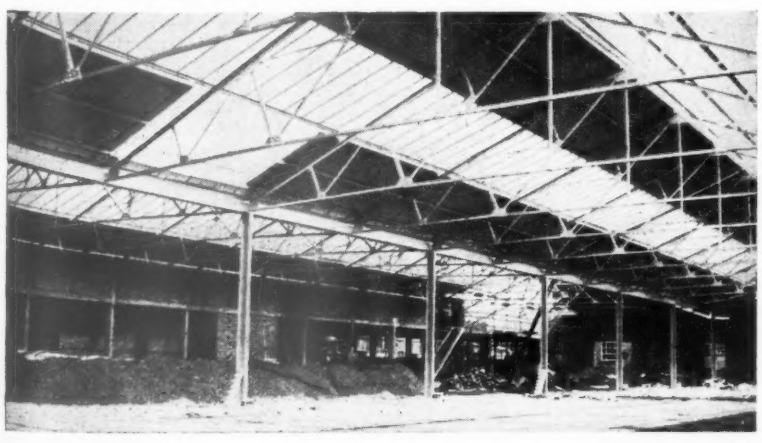
ASSISTANT required for contemporary North Wales practice. Intermediate standard, with office experience. B. Hallwood Lingard, A.R.I.B.A., Llangefni, Anglesey. 1596

ARCHITECTURAL ASSISTANT required, Holborn district, 5-day week. Intermediate standard. Salary according to experience. Write Box 556, c/o 7, Coptic Street, London, W.C.1. 1587

ARCHITECTURAL ASSISTANT required by firm in Home Counties. General practice. Apply, stating experience and salary, to Box 1591.

ARCHITECTS and ARCHITECTURAL ASSISTANTS required. Salary scale:
Architectural Assistants: £500×£25—£750.
Architects: £550×£25—£800.
Senior Architectural Assistants: £710×£40—£950.
Senior Architects: £760×£40—£1,000.

Superannuation and bonus schemes in operation. Applications should be made in writing, giving age and details of experience, to The Scottish Construction Co., Ltd., Sighthill Industrial Estate, Edinburgh, 11. 1619



STRUCTURAL STEELWORK
for
ALL TYPES OF BUILDING and INDUSTRIAL PURPOSES, GANTRIES, BUNKERS, etc.

HENDRICK
CONSTRUCTION COMPANY LTD

63 GREAT PORTLAND STREET
LONDON, W.1
Phone: LANgham 5914

Architectural Appointments Wanted

SENIOR ASSISTANT, free now, seeks responsible post in Architect's office, preferably in London area. 30 years' all-round experience. Car owner. G. W. Hill, 14, Cambridge Mansions, Battersea Park, S.W.11. 'Phone BAT. 7292. 841

SENIOR ASSISTANT (32) desires change. Central or South London preferred. Comprehensive experience. Box 1397.

CHARTERED ARCHITECT / SURVEYOR / BUSINESS Man (39) seeks responsible post in business where successful energy would be rewarded. Administrator. Executive. Some capital. Box 1589.

ARCHITECTURAL WRITER (23) seeks any opportunity to use his talents: sub-editing, reporting, creative and critical writing, historical research. Ex-R.A.F. officer, maths. degree. Sound æsthetics, historical knowledge, literary ability; common sense as well. Anything considered. Box 1606.

ASSISTANT (32), R.I.B.A. Final standard. 11 years' all-round experience, seeks responsible position in small but busy office in Central, S.E. London, or N. and S.E. Kent. Salary £650-£700. Available in one week. Box 845.

SENIOR ARCHITECTURAL ASSISTANT (31). Final R.I.B.A. standard, seeks situation, with contemporary outlook in progressive office in or near London. Box 843.

SCHOOL-TRAINED Associate R.I.B.A. (26), single man and car-owner, with three years post-graduate experience in larger private office, seeks position with architect in West Country, where there is scope for responsibility and advancement. Box 844.

Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

"THE Architects' Journal" requires a DRAUGHTSMAN, to assist in the preparation of final ink drawings for Working Details and Information Sheets. Good draughtsmanship, a knowledge of building construction, and a keen interest in the above type of work are necessary. Write to the Editor (Information Sheets), 9, Queen Anne's Gate, S.W.1, stating age, architectural training, and experience (if any). 1429

IMPERIAL CHEMICAL INDUSTRIES LIMITED, BILLINGHAM DIVISION, require the services of an experienced and qualified quantity surveyor. Age should not exceed 40 years. Salary according to qualifications and experience. Write giving full details of qualifications and experience to the Staff Manager, Imperial Chemical Industries Limited, Billingham Division, Billingham, Co. Durham, quoting advertisement reference J.4. 1581

ASSISTANT BUILDING SURVEYOR (age 25/35) required by Chartered Surveyors (City). Experienced in measuring, specifying, and supervising works to Business premises and with knowledge of Dilapidations. Member R.I.C.S. preferred. Salary £600 p.a., with good prospects. Box 1513.

H. NEWSUM SONS & COMPANY LIMITED, of Lincoln, have the following vacancies in departments dealing with prefabricated timber buildings and Trofdek Structural Systems:
1.—Structural Engineering Assistant.
2.—Architectural Assistant.
3.—Junior Contracts Manager.
4.—Draughtsmen and Estimators.
Good opportunities offered in rapidly expanding departments. Staff Pension Scheme operated. Apply in writing to the Secretary H. Newsum, Sons & Co., Ltd., Carholme Road, Lincoln. 1562

WANTED URGENTLY. Secretary/Shorthand Typist for Architect's small office in St. John's Wood. Box 1563.

QUANTITY SURVEYORS and SURVEYORS' ASSISTANTS required. Salary scale:
Surveyors' Assistants: £500×£25—£750.
Surveyors: £550×£25—£800.
Senior Surveyors' Assistants: £710×£40—£950.
Senior Surveyors: £760×£40—£1,000.
Superannuation and bonus schemes in operation. Applications should be made in writing, giving age and details of experience, to The Scottish Construction Co., Ltd., Sighthill Industrial Estate, Edinburgh, 11. 1620

Services Offered

4 lines or under, 7s. 6d.; each additional line, 2s.

SPECIFICATIONS for new or alteration work, surveys and detailed drawings, quantities, variations, measured, final accounts, reports, etc. Quantity Surveyor, LIV. 1839, or Box 1352.

EXPERIENCED STRUCTURAL ENGINEER would be pleased to assist in Design, Detailing and Inspection in timber, steel and concrete of all types, including prestressed concrete. Box 1531.

EXPERIENCED ARCHITECT, with London office, offers to undertake work for Architects. Own car. Terms by arrangement. Box 1590.

PAINTER & SCULPTOR, Nat. Dip. in design quals., desirous of devoting their talents to contemporary architecture. Experience in Midlands locality. Box 1607.

INTELLIGENT SECRETARY (23), with experience in an Architect's office would like an interesting and progressive post. Box 1608.

SECRETARY, Shorthand-Typist (23 years of age), seeks post, preferably West End. Four years' architectural experience. Box 1603.

SURVEYS, reports specifications and site plans prepared. Experienced staff available to assist with designs and layouts. Valuations and schedules of dilapidation, etc., prepared. WELbeck 0589/0. 1564

TYPEWRITING/DUPLICATING. All kinds undertaken by experts. Specifications, etc. Usual office staff supplied. Miss Stone, 446, Strand, W.C.2. TEM. 5984. 1569

For Sale or Wanted

4 lines or under, 7s. 6d.; each additional line, 2s.

NEW 5/3½ "Ward" Portable Petrol-driven Concrete Mixers for Sale. Full details from Thos. W. Ward, Ltd., Albion Works, Sheffield. 1544

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos, Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 2948. 6803

Partnerships

6 lines or under 12s. 6d.; each additional line, 2s.

F.R.I.B.A., A.M.P.T.I., University trained, contemporary outlook, seeks partnership or practice for sale in Isle of Man or Southern England. Box 1583.

REG. ARCHITECT, wide experience over 25 years, seeks partnership in busy practice. Capital available. London area. Reply Box 1573.

Miscellaneous

4 lines or under, 7s. 6d.; each additional line, 2s.

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061

FOR FULLY GALVANISED Chain Link always specify MASTERFOIL. Messrs. Fencing & Gates, Ltd., fourteen, Stanhope Gate, London, W.1. 9926

ARCHITECT setting up own practice wishes to share or take accommodation with telephone, for a temporary period, pending establishing his own permanent office. Box 1436.

BED-SITTINGROOM, with drawing table in private flat, S.W.7. Use of kitchen, telephone. 2½ guineas, including gas fire. Box 1577.

Educational Announcements

4 lines or under, 7s. 6d.; each additional line, 2s.

R.I.B.A. AND T.P.I. EXAMS.—Stuart Stanley (Ex. Tutor Sch. of Arch., Lon. Univ.), and G. A. Crockett, M.A./B.A., F./F.R.I.B.A., M.A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.), prepare Students by correspondence. 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

R.I.C.S., I.Q.S., and I.A.A.S. Postal Courses for all exams. including R.I.C.S. Preliminary and I.Q.S. Special Test conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B, Old Brompton Road, S.W.7. KEN. 4477. Descriptive Booklet on request. 7020

COLLEGE OF ESTATE MANAGEMENT
(Incorporated by Royal Charter)
St. Alban's Grove, Kensington, W.8

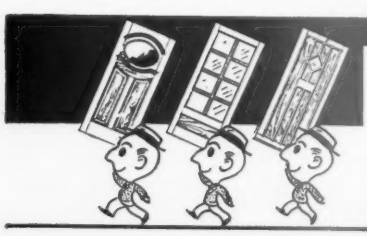
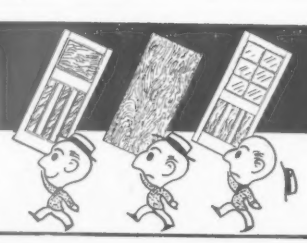
DAY, EVENING and POSTAL courses for certain of the Examinations of
THE ROYAL INSTITUTION OF CHARTERED SURVEYORS
(Including the Valuations, and the Building Surveying and Quantity Surveying Sections)

DAY and POSTAL courses for the Examinations for the
UNIVERSITY OF LONDON DEGREE OF B.Sc. (ESTATE MANAGEMENT)

POSTAL courses for the Examinations of the
INSTITUTION OF MUNICIPAL ENGINEERS
THE ROYAL SANITARY INSTITUTE
THE TOWN PLANNING INSTITUTE

Full information including details of length of courses and times of opening from:
THE SECRETARY (Dept. A) Telephone: WEStern 1546

Windmills in England
a study of their origin, development and future
by Rex Wailes
MR WAILES is the leading authority on the subject and his very thorough book is illustrated by many fine photographs. Size 11 ins. by 8½ ins. 100 illustrations. 12s. 6d. net, postage 7d.
The Architectural Press, 9-13 Queen Anne's Gate, S.W.1


DOORS DOORS DOORS
Send for our illustrated literature and choose your doors from the largest and most varied stock in the trade. Over 40 designs and 172 items.
LANGLEY 232 BRYCE WHITE & CO. LTD. SOUTHALL 2231
Deseronto Wharf, Langley, Bucks. Also at London, Bristol, Southampton.


COURSES for all R.I.B.A. EXAMS.
Postal tuition in History, Testimonies, Design, Calculations, Materials, Construction, Structures, Hygiene, Specifications, Professional Practice etc. Also in general educational subjects.
ELLIS SCHOOL OF ARCHITECTURE
Principal : A. B. Waters, M.B.E., G.M., F.R.I.B.A.
103B OLD BROMPTON RD., LONDON, S.W.7
Phone : KEN 4477 *and at Worcester*

FIRE !
OUR RECORDS LOST BUT FOR
NU-SWIFT !
"So unexpected, so quickly . . . blazes everywhere . . . three old-fashioned extinguishers failed . . . but reliable Nu-Swift had the fire out in seconds." When will YOU get up-to-date ?
NU-SWIFT LTD · ELLAND · YORKS
In Every Ship of the Royal Navy

ANCHORAGES TO CONCRETE
SPEARPOINT Floor Clips to anchor wood floors to concrete.
DOVETAIL Masonry Slot and Anchors to anchor brick and stone facings to concrete.
ANKORTITE Box Fittings.
ABBEY BUILDING SUPPLIES CO.
6, Waldemar Road, Wimbledon, London, S.W.19
Telephone : Wimbledon 4178

MINIMISE FIRE RISK WITH
DURASTEEL
STRUCTURAL FIRE PROTECTION
For Partitions, False Ceilings, Lift Shaft, Cladding, Fire Check Doors, etc., specify DURASTEEL 3DF2 Composite Steel-&-Asbestos Sheeting. Send for data and test details to manufacturers :—
DURASTEEL LTD., OLDFIELD LANE, GREENFORD MIDDX. *Tel. WAXlow 1051 (P.B.X)*

LIGHTNING PROTECTION
By
FURSE
W. J. FURSE & CO., LTD.
10, TRAFFIC STREET, NOTTINGHAM.
LONDON—MANCHESTER—BRISTOL

GIMSON LIFTS
Service is available throughout the country. Technical literature will be sent on request.
GIMSON & CO. (LEICESTER) LTD.
VULCAN ROAD, LEICESTER
Phone : Leicester 60272 Grams : Gimson Leicester

HEATING
HOT WATER SUPPLIES AND VENTILATION
for
INDUSTRIAL • COMMERCIAL AND PRIVATE BUILDINGS
CHAS. P. KINNELL & CO. LTD
65, 65a SOUTHWARK ST.
LONDON, S.E.1. Phone : WAT 4144

SIGNS and LETTERS
IN METAL, WOOD, PERSPEX.
PRODUCED IN OUR OWN UP-TO-DATE WORKSHOPS BY SKILLED CRAFTSMEN BUILT TO YOUR SPECIFICATION.
SIGN SERVICE 9, HIGH STREET, BIRMINGHAM 23
Phones : Erdington 5234/5

WHITE FACING
BRICKS
(S. P. W. BRAND)
Telephone : BULwell 78237-8
Telegrams : "Maclime", Bulwell, Nottingham.
M. McCARTHY & SONS, LTD
BULWELL • NOTTINGHAM

EXAMINATION CANDIDATES!
You are coached by
I.C.S.
until you pass
Students enrolling with I.C.S. for examination courses are coached without extra fee until they pass. Many brilliant successes are gained each year in R.I.B.A., R.I.C.S., I.Q.S., I.Struct.E., I.Mun.E., Examinations. Fees are moderate and include all books required. Reduced Terms to H.M. Forces.
WRITE TODAY FOR FREE BOOKLET
giving full details of YOUR examination or non-examination subject.
Dept. 5C, I.C.S., 71 Kingsway, W.C.2.
INTERNATIONAL CORRESPONDENCE SCHOOLS
Dept. 5C, International Buildings, Kingsway, London, W.C.2.
Subject
Name *Age*
Address

ANOTHER *Sommerfelds'* PRODUCT
LONDON OFFICE : 167, VICTORIA ST., S.W.1. TEL. VIC. 1000
SOMMERFELDS LTD. WELLINGTON · SHROPS · TELE 1000

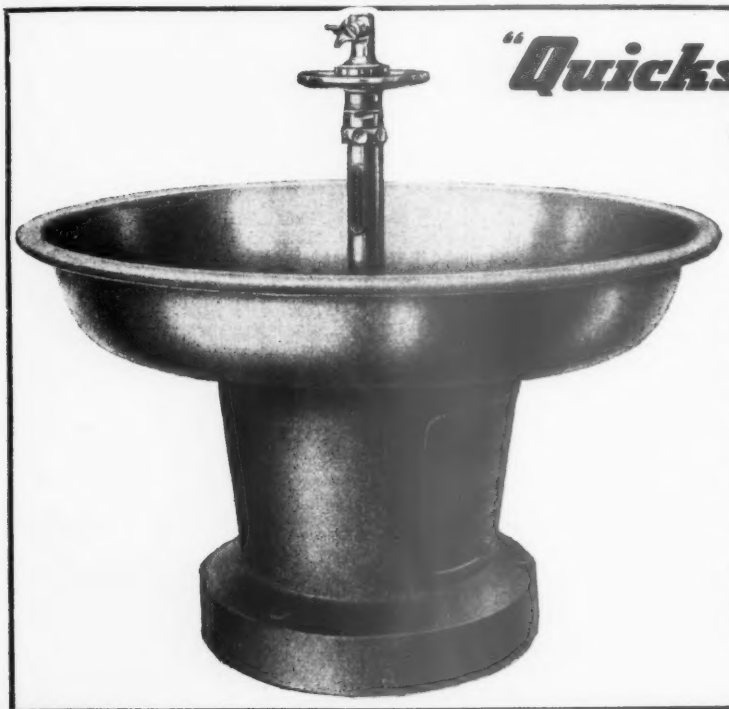
LATTICE BEAMS
IMMEDIATE DELIVERY
OF RIVETED CONSTRUCTION IN HIGH TENSILE STEEL
ECONOMY · RIGIDITY

METAMICA LTD
50 BLOOMSBURY St. LONDON, W.C.1
Telephone MUSeum 6363
Subsidiary Company of William Kenyon & Sons Ltd. Dukinfield, Cheshire
We offer to architects and builders a wide range of thermal insulation materials. Our service includes technical guidance and supervision on site at all stages of construction.
V 28

Alphabetical Index to Advertisers

	PAGE
Abbey Building Supplies Co.	lxxv
Accrington Brick & Tile Co., Ltd.	lxx
Acrow Engineers, Ltd.	vii
Antiference Installations	lxviii
Architectural Press, Ltd., The	xl, lxvi, lxviii
Armstrong Cork Co., Ltd.	xxi
Ascot Gas Water Heaters, Ltd.	liv
Automatic Pressings, Ltd.	lxxvii
Baker, W. A., & Co., Ltd.	xxxiv
Batley, Ernest, Ltd.	lxviii
Beckett, Laycock & Watkinson, Ltd.	lxviii
Bigwood, Joshua, & Son, Ltd.	xxiii
Booth, John, & Sons (Bolton), Ltd.	xxiv
Boulton & Paul, Ltd.	xviii
Braby, Fredk., & Co., Ltd.	xxxi
Briggs, Wm., & Sons, Ltd.	xxxii
British Mouldex Rubber Co., Ltd.	lxx
British Paints, Ltd.	ix
British Plimber, Ltd.	xviii
Broad & Co., Ltd.	xl
Brooks Air & Heat System, Ltd.	xliv
Bryce White & Co., Ltd.	lxxiv
Bunting Construction Co., Ltd., The	xxxiv
Cafferata & Co., Ltd.	ii
Castle Castings, Ltd.	lxiii
Clarke Ellard Engineering Co., Ltd.	xix
Cole, E. K., Ltd.	xxxvi
College of Estate Management	lxxiv
Compactom, Ltd.	lix
Crabtree, J. A., & Co., Ltd.	viii
Crane, Ltd.	xiii
Claygate Fireplaces, Ltd.	xlviii
Croft Granite Brick & Concrete Co., Ltd.	lxvi
Crompton Parkinson, Ltd.	xlvi
Destrol Sales, Ltd.	xi
Dunn, Alexander, Ltd.	xlvi
Durasteel, Ltd.	lxxv
Eagle Pencil Co., Ltd.	lxvii
Econa Modern Products, Ltd.	xxviii
Ellis, John, & Sons, Ltd.	vi
Ellis School of Architecture, The	lxxv
Engravers' Guild, Ltd., The	lxxvii
Excel Asphalte Co., Ltd.	—
Farmer, S. W., & Son, Ltd.	lxx
Farrer, Wm. E., Ltd.	lxxvi
Fibreglass, Ltd.	v
Fibrolene, Ltd.	xxxviii
Finlock Gutters, Ltd.	lviii
Fuse, W. J., & Co., Ltd.	lxxv
Gas Council	xxv
Gimson & Co. (Leicester), Ltd.	lxxv
Girlings Ferro-Concrete Co., Ltd.	xxix
Greenwood's & Airvac Ventilating Co., Ltd.	iii
Gyproc Products, Ltd.	—
Hall, Robt. H., & Co. (Kent), Ltd.	lxix
Harvey, G. A., & Co. (London), Ltd.	lxv
Haskins	xv
Heal's Contracts, Ltd.	lxii
Henderson, P. C., Ltd.	—
Hendrick Construction Co., Ltd.	lxxiii
Hill, E. Aldam, & Co., Ltd.	l
Hills (West Bromwich), Ltd.	—
Hope, Henry, & Sons, Ltd.	lvi
Horseley Bridge & Thos. Piggott, Ltd.	xvi
International Correspondence Schools	lxxv
Johnson & Phillips, Ltd.	xxxiii
Johnston Bros. (Contractors), Ltd.	lxx
Jones & Broadbent, Ltd.	lii
Kay, Fredk. (Eng.), Ltd.	iii
Kenyon, Wm., & Sons, Ltd.	lxxv
Key Engineering Co.	lxiv
Kinnell, Chas. P., & Co., Ltd.	lxxv
Lacrinoid Products, Ltd.	xxxvii
Lamont, Jas. H., & Co., Ltd.	—
Le Grand Sutcliffe & Gell, Ltd.	xxx
London Brick Co., Ltd.	—
Lovell & Hanson, Ltd.	xxxvi
McCarthy, M., & Sons, Ltd.	lxxv
Magnet Joinery, Ltd.	iv
Mallinson, Wm., & Sons, Ltd.	lxiii
Mander Bros., Ltd.	xlix
Marley Tile Co., Ltd., The	xlvii
Metropolitan-Vickers Electrical Co., Ltd.	lii
Midland Woodworking Co., Ltd.	x
Mills Scaffold Co., Ltd.	lxxviii
Moler Products, Ltd.	lxv
Morris, M. A., Ltd.	lvii
Mullen & Lunsden, Ltd.	—
Myton, Ltd.	xliii
National Federation of Clay Industries	xiv
Nettle Accessories, Ltd.	xlv
Neuchatel Asphalte Co., Ltd., The	lx
Northern Aluminium Co., Ltd.	—
Nu-Swift, Ltd.	lxxv
Nu-Way Heating Plants, Ltd.	xli
Orlit, Ltd.	—
Pennycook Patent Glazing & Eng. Co., Ltd.	—
Permanite, Ltd.	liii
Phoenix Rubber Co., Ltd.	—
Pilkington Bros., Ltd.	xxii
Poles, Ltd.	xxvi
Radiation Group Sales, Ltd.	—
Rawlings Bros., Ltd.	ii
Riley Stoker Co., Ltd.	xxxix
Rom River Co., The	xxvi
Rownson, Drew & Clydesdale, Ltd.	lxxvii
Ruberoid Co., Ltd., The	—
Salter, T. E., Ltd.	lxiv
Sealocrete Products, Ltd.	—
Semtex, Ltd.	—
Sign Service	lxxv
Simplex Electric Co., Ltd.	—
Smith & Pearson, Ltd.	l
Smith & Rodger, Ltd.	—
Smith, Thos., & Son, Ltd.	—
Sommerfeld's, Ltd.	lxxv
Storry, Smithson & Co., Ltd.	lxvii
Stott, Jas., & Co. (Engrs.), Ltd.	—
Sundeala Board Co., Ltd.	—
Sulzer Bros., Ltd.	xx
Tarmac, Ltd.	xlviii
Thermalite, Ltd.	xlii
Thompson, John (Beacon Windows), Ltd.	—
Thornton, A. G., Ltd.	lxix
Timber Development Association, Ltd.	—
Timber Fireproofing Co., Ltd.	xxx
Treetex, Ltd.	xxxv
Trussed Concrete Steel Co., Ltd., The	li
Unia, Ltd.	lxvi
Venetian Vogue, Ltd.	lxi
Walker, Crosweller & Co., Ltd.	—
Wardle Eng. Co., Ltd.	—
Waring & Gillow, Ltd.	xxviii
Wheatly & Co., Ltd.	xxvii
Wholesale Fittings Co., Ltd.	xxxviii
Williams & Williams, Ltd.	—

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Education, Legal Notices, Miscellaneous Property, Land and Sales, see lxxi, lxxii, lxxiii, lxxiv, lxxv.



"Quickspray" and "Silvaspray"

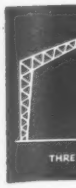
The continued and increasing demand for "QUICKSPRAY" and "SILVASPRAY" Wash Fountains indicates the appreciation of all those who both specify and install this fitting, because it affords the maximum washing accommodation under the most hygienic conditions yet evolved. We have well over 50 years of specialised knowledge in Sanitary equipment—let us co-operate with you in the selection of the fitting for your specific requirement.

We are manufacturers and suppliers of all patterns of Sanitary equipment.

Catalogue on request.

WILLIAM E. Farrer LIMITED
CROWN WORKS, WELBY ROAD, HALL GREEN, BIRMINGHAM 28
STAR WORKS, BIRMINGHAM 9
82 VICTORIA STREET, LONDON S.W.1

Farrer

H
ST
★

THRE
THE HA
steel s
ised by th
trusses,
members,
possible

Double-s
cor

Round

How TIMBER can replace STEEL in structural work

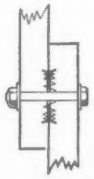


THE HAMPERING effect of the steel shortage can be minimised by the use of more timber for trusses, lattice girders, bracing members, etc. This technique is possible through "Bat" Timber Connectors—providing immensely strong efficient joints — real engineering practice in timber.

Study the diagrams and it can easily be observed how the "Bat" Connector when bolted 'bites' into the wood. If you would like to know more about the possibilities of timber in structural work send for leaflet—free to all architects.



Double-sided square connector


Timber-to-timber joint

BAT BRAND



Round Shear-plate

TIMBER CONNECTORS

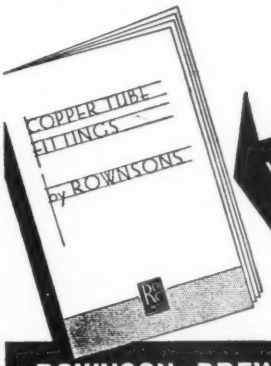
AUTOMATIC PRESSINGS LTD.
Bat Works, Blackheath, Birmingham, Staffs.

COPPER TUBE FITTINGS

PRESENTED IN CONCISE FORM

- **INTEX** (*Capillary Pre-tinned*)
- **YORKSHIRE** (*Capillary*)
- **INSTANTOR** (*Compression*)
- **SPEEDEX** (*Compression*)
- **ACCESSORIES**

WRITE FOR THIS NEW PUBLICATION

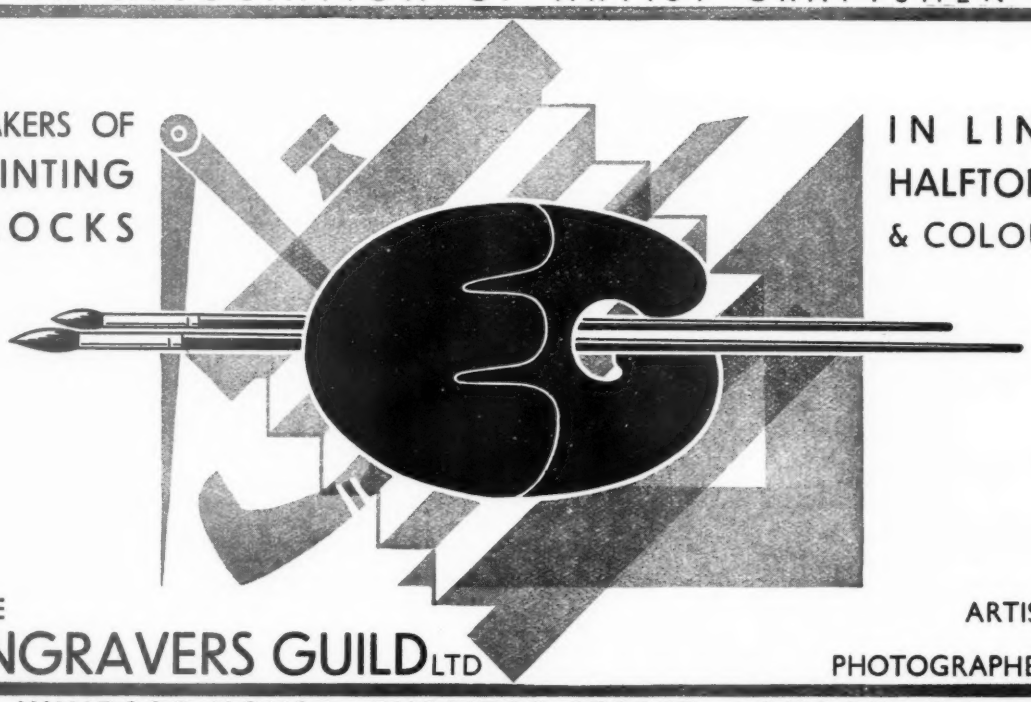


ROWNSON'S FITTINGS
ARE THE MOST ECONOMICALLY PRICED AVAILABLE

ROWNSON, DREW & CLYDESDALE LTD
225 UPPER THAMES ST · LONDON · E.C.4
Established 1819 Phone WAT. 6321

AN ASSOCIATION OF ARTIST CRAFTSMEN

MAKERS OF PRINTING BLOCKS



IN LINE HALFTONE & COLOUR

THE ENGRAVERS GUILD LTD

ARTISTS PHOTOGRAPHERS

WINDSOR HOUSE · CURSITOR STREET · LONDON · E.C.4

MILLS Floor Centres

IMMEDIATE DELIVERY

FOR SALE OR HIRE



STRONGER!

The only floor centres with high-tensile chrome molybdenum steel main members—no stiffeners!

SIMPLER!

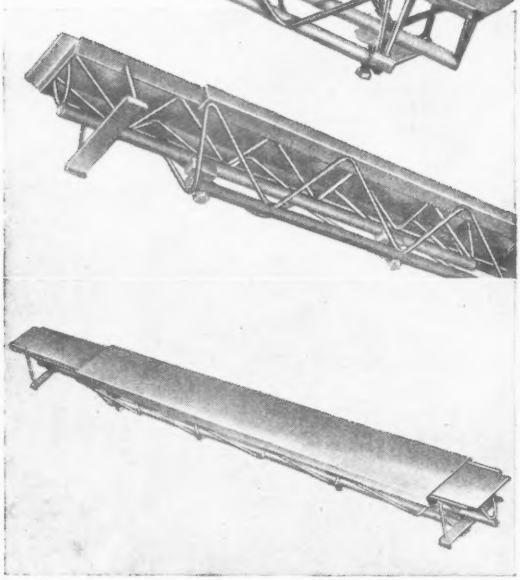
Lattice-work construction of side members gives greater ease of cleaning and maintenance!

FASTER!

Lighter in weight, easier to handle, quicker to position. Fewer sliding surfaces liable to damage.

SAFER!

Minimum deflection. Provision for support off beams, walls or props, etc.



FOUR SIZES, ADJUSTABLE LENGTH

	LENGTH CLOSED	LENGTH EXTENDED	WEIGHT lbs.
A	4 ft.	6 ft.	52
B	6 ft.	8 ft.	76
C	8 ft.	11 ft.	104
D	10 ft.	15 ft.	131

FOR HOLLOW-TILE OR REINFORCED CONCRETE FLOORS. CAN BE ERECTED BY SEMI-SKILLED OPERATORS.

WRITE FOR ILLUSTRATED FOLDER WITH COMPLETE DETAILS TO MILLS SCAFFOLD CO. LTD., TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6. (RIVerside 5026/9)

BELFAST · BIRMINGHAM · BOURNEMOUTH · BRIGHTON · BRISTOL · CANTERBURY · CARDIFF · COVENTRY · CROYDON · DUBLIN · GLASGOW · HULL · ILFORD
LIVERPOOL · LOWESTOFT · MANCHESTER · NEWCASTLE · NORWICH · PLYMOUTH · PORTSMOUTH · READING · SHIPLEY · SOUTHAMPTON · SWANSEA · YARMOUTH

Printed in Great Britain for the Proprietors of "THE ARCHITECTS' JOURNAL" (The Architectural Press Ltd.), 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, by HARRISON & SONS LTD., Printers to the late King George VI, London, Hayes (Middx.), and High Wycombe.
Editorial illustrations engraved by THE ENGRAVERS' GUILD LTD., Windsor House, 23/26, Cursitor Street, London, E.C.4.

